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ABSTRACT

The National Job Corps Study was conducted in 1994-1996 to provide a thorough and rigorous assessment of the impacts of the Job Corps on key participant outcomes. To ensure that the study was well implemented, a study team from Mathematica Policy Research, Inc., (MPR) investigated outcome and admission (OA) procedures in each Job Corps region and developed proposed procedures for conducting random assignment tailored to each region. A four-step core random assignment process was implemented. During the sample intake period, MPR staff monitored sample buildup to ensure that the research sample was near target levels and determine whether the initial sample design parameters required adjustment. Job Corps staff implemented the random assignment procedures successfully over the 16-month sample intake period. Overall, the study had noticeable effects on key aspects of program operations but modest effects on OA counselors' activities and the composition of students coming to the program. (Fifteen tables/figures are included. The following items are appended: lists of special programs excluded from the Job Corps evaluation and data items needed for random assignment processing and monitoring; Job Corps study materials and forms; a chronology of random assignment implementation; and a list of processing steps performed by MPR before random assignment.) (MN)

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National Job Corps Study: Report on Study Implementation

April 29, 1999

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The random assignment procedures were designed by a team that included Charles Metcalf from Mathematica Policy Research, Inc. (MPR), Terry Johnson and Mark Gritz from Battelle Human Affairs Research Centers, Russell Jackson from Decision Information Resources, Inc., and the authors of this report. The operational design and study implementation benefited greatly from the contributions of many individuals at the U.S. Department of Labor: Daniel Ryan, project officer for the study, Karen Greene, and David Lah at the Office of Policy and Research; Peter Rell, Job Corps director during the period of design and early implementation; Mary Silva, current Job Corps director; Alexandra Kielty and Jenny Gallo of the Job Corps National Office; and the regional Job Corps directors and regional office study coordinators in each of the nine Job Corps regions. Members of the study advisory panel also made important contributions to the design and focus of the study. Panel members during the design of the study were Rebecca Blank, Robert Boruch, Gary Burtless, Jeffrey Fagan, Robinson Hollister, Cleve Lane, Linda Rikli, Billy Tidwell, and William Youngren. In addition, MPR senior fellow Rebecca Maynard participated in the advisory panel discussions.

John Homrighausen oversaw the design and managed operations of MPR's survey center, which processed data from Job Corps Outreach and Admissions (OA) agencies, performed random assignment, and notified the OA agencies of each applicant's research status. Michael Watts designed and implemented the computer system used to process information on each applicant and perform random assignment. Marianne Stevenson and Linda Gentzik supervised day-to-day operations of the survey center staff and maintained contact with study coordinators at each of the more than 100 OA agencies involved in the study. Their organizational skills and tact ensured that processing was accomplished quickly and correctly and the research status of each applicant was communicated to OA staff in the same manner.

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EXECUTIVE SUMMARY

The Job Corps program has been a central part of federal efforts to provide employment assistance to disadvantaged youths since 1964. Job Corps serves economically disadvantaged youths between the ages of 16 and 24 who can benefit from a wide range of education, vocational training, and support services in a predominantly residential setting. Currently, 116 Job Corps centers operate nationwide, serving more than 60,000 new enrollees each year, at an annual cost of more than 1 billion dollars. Given the program's size and its central role in federal efforts to assist disadvantaged youths, a comprehensive evaluation of the program is an important priority.

The National Job Corps Study, funded by the U.S. Department of Labor (DOL), is designed to provide a thorough and rigorous assessment of the impacts of Job Corps on key participant outcomes. An analysis of program benefits and costs and a process study are also being conducted. The cornerstone of the study is the random assignment of all program applicants found eligible for Job Corps to either a program group or a control group. Program group members were permitted to enroll in Job Corps. Control group members were not permitted to enroll in Job Corps for a period of three years (although they could enroll in other training or education programs). Program impacts will be estimated using follow-up survey data collected 12, 30, and 48 months after random assignment, as well as administrative records data.

This report describes the implementation of random assignment and sample intake, presents evidence that the process was implemented in a way that will enable the study to realize its goals, and draws lessons from the experience that may be applicable to other program evaluations.

STUDY DESIGN

The Job Corps evaluation is based on a national sample of eligible program applicants. Youths were sampled from all outreach and admissions (OA) agencies nationwide between November 1994 and February 1996. This nonclustered design was adopted because the national sample will produce more precise impact estimates than a clustered design of the same size, and because this approach spreads the burden of random assignment across all OA agencies and Job Corps centers.

Youths were randomly assigned after they were determined to be eligible for the program and were ready to be, but had not yet been, assigned to a center. This point in the Job Corps intake process was chosen for two reasons. First, it addresses a useful and well-defined policy question: What are the effects of Job Corps on youths who apply for and are found eligible for Job Corps? Second, random selection procedures could be incorporated into the existing intake process, with acceptable levels of disruption.

Overall, the sampling rate to the control group was 7.4 percent on average. It was set lower for females who had a high likelihood of being a residential student because residential females are difficult to recruit and Job Corps staff were concerned that the study would cause slots for residential females to go unfilled.

IMPLEMENTATION OF SAMPLING PROCEDURES

A well-implemented random assignment study requires consistently accomplishing three tasks:

1. Explaining the study to prospective program applicants
2. Ensuring that all people in the population of interest are subject to random selection and that each person is subject to it once and only once
3. Ensuring that only people randomly selected to the program group enroll in the program

To ensure that these tasks would be accomplished with minimum burden on OA staff, the study team investigated OA procedures in each region and developed proposed procedures for conducting random assignment tailored to each region. With assistance from Job Corps regional office staff, we then met with senior representatives of each organization that conducted outreach and admissions in each region. These meetings were used to discuss why random assignment was necessary and then to refine the proposed procedures for conducting random assignment to be sure they worked for staff in the region. These meetings helped OA managers to think concretely about how the need to form a control group who could not enroll in Job Corps would affect their staff. The meetings also produced several specific suggestions for materials that would assist OA staff in presenting the study.

In late summer and fall 1994, the study team conducted training sessions for nearly all the OA counselors and coordinators in each Job Corps region. Approximately 900 OA staff from 100 OA agencies attended the sessions, which were designed to inform Job Corps staff about the reasons for the study and to provide them with the information necessary to perform their study-related tasks.

After a brief period for testing procedures beginning on November 1, 1994, sample selection began on November 17, 1994 and continued through February 28, 1996. During this period, OA staff were required to submit information to MPR for all new eligible applicants before the applicant could be assigned to a Job Corps center. All eligible Job Corps applicants whose application date for Job Corps was between November 17, 1994, and December 16, 1995 were subject to selection for the study control group. For applications that MPR received from December 17, 1995, to February 28, 1996, only people whose application date was before December 17 were part of the sample and subject to random selection.

The core random assignment process consisted of four steps:

1. Job Corps OA staff informed each Job Corps applicant about the study.
2. For each new applicant in the sample frame, Job Corps OA staff completed and transmitted three forms to MPR: the Job Corps application form, a study-specific supplement to the application form, and an Agreement to Participate form.

3. MPR checked that all key information for random assignment was complete, that applicants were in the sample frame, and that they had not previously been sent for random assignment. Then, each new applicant in the sample frame was randomly assigned to the control, program research, or program nonresearch group.

4. MPR notified Job Corps staff of the random assignment results within 48 hours, and sent an official notification letter signed by DOL officials to control group members. Most OA staff also contacted youths they recruited about the random assignment results.

Job Corps staff assigned only program group members to a center slot. By checking a study form completed for each applicant, center staff determined that each incoming student had been sent to MPR for the random selection process and had not been assigned to the control group.

Over 1,300 Job Corps OA counselors nationwide were directly involved in random assignment during the sample intake period, and approximately 110 Job Corps OA coordinators and approvers transmitted materials to MPR. During the sample intake period, nearly 81,000 applications in the sample frame were processed by MPR. The final sample consists of 5,977 control group members, 9,409 program research group members, and 65,497 program nonresearch group members.

MONITORING SAMPLE BUILDUP AND ENDING RANDOM ASSIGNMENT

During the sample intake period, MPR staff monitored sample buildup to assess whether the research sample was near target levels and whether initial sample design parameters needed to be adjusted. This monitoring process also guided plans for ending random assignment because we wanted to end sample intake only after the research sample size targets were attained.

By mid-1995, the cumulative number of eligible Job Corps applicants sent for random assignment was well below the levels anticipated on the basis of historical data, and centers were operating well below full capacity. Three factors appear to be responsible for the shortfall in applicants. First, in March 1995, Job Corps instituted several major changes in program policies (for example, strengthening zero tolerance policies for violence and drugs) that temporarily disrupted flows into the program. Second, the Job Corps program received significant negative publicity during late 1994 and early 1995. Finally, the presence of the control group for the National Job Corps Study contributed to the shortfall, as the outreach system was initially not able to increase the numbers of eligible applicants as planned.

Because of the shortfall, initial plans to end random assignment in late fall 1995 were revised, and sample intake was extended until early 1996. Beginning in summer 1995, the outreach and intake system began a concerted effort to bring centers to full capacity. This led to a surge in new applications in late summer and fall 1995, which allowed sample size targets to be met and exceeded by the end of the year. Sample intake ended on February 29, 1996, although only those eligible applicants who applied to Job Corps before December 17, 1995, were included in the sample frame.

MONITORING ADHERENCE TO RANDOM ASSIGNMENT PROCEDURES

Job Corps staff implemented the random assignment procedures successfully over the 16-month sample intake period. Less than 0.6 percent of youths in the sample frame were not randomly assigned, and we estimate that very few youths who are outside of the sample frame are in the sample. In addition, through the end of February 1999, just 1.4 percent of control group members enrolled in Job Corps before the end of the three-year period during which control group members were not supposed to enroll. Hence, we believe that the research sample is representative of the youths in the intended sample frame and that the bias in the impact estimates due to contamination of the control group will be small.

The Job Corps Student Pay, Allotment, and Management Information System (SPAMIS) has enabled MPR to identify center enrollees in the sample frame who were not randomly assigned and those who were previously assigned to the control group. MPR receives information on all new enrollees in Job Corps each week and matches this information with that for youths who were sent for random assignment. Early discovery of errors allowed the study team and Job Corps to take prompt corrective action. OA staff had lists of control group members showing the date on which each can enter, and SPAMIS incorporates a check when a center adds a student to the data system.

EFFECTS OF THE STUDY ON PROGRAM OPERATIONS

Overall, the study had noticeable effects on key aspects of program operations. Job Corps experienced a decline in program intakes during the first half of the study intake period and a very large decline in on-board strength (OBS)--from 96 percent in January 1995 to under 80 percent in July 1995. The study appears to have played a relatively modest role, with removal of control group members from the flow of applicants into the program accounting for approximately one-fourth of the drop in OBS.

The effects of the study on OA counselors' activities and the composition of students coming to the program appear to have been modest. Few said they started new outreach activities, spent more time on outreach, or lost referral sources because of the study. Most said the study had no or only small effects on their ability to recruit students, although one-third of students were recruited by OA counselors who said the study caused them significant problems that made recruiting more difficult. OA counselors reported that few students were dissuaded from applying or decided to postpone their application because of the study's random selection procedures. Finally, OA counselors do not appear to have provided substantially more assistance in finding alternative training opportunities to the control group than they provided for other applicants who could not enroll in Job Corps.

LESSONS

We believe that the implementation of the National Job Corps Study offers three lessons for the successful implementation of a randomized study design in an ongoing program:

1. ***The active, visible commitment of program managers to the success of the study is very important.*** Job Corps managers wanted a well-implemented study because they believed a strong study would demonstrate that their program is effective, and thereby engender continued public support for it. Program managers effectively communicated this message to program staff. Believing their study-related tasks were important, program line staff performed diligently the tasks of telling applicants about the study, gathering necessary information, and making sure that only program group members are sent to Job Corps.

2. ***Research staff should work closely and continuously with the line staff who conduct program outreach and intake.*** This entails making sure line staff understand why random assignment is necessary; making study-related tasks of line staff as simple as possible; providing staff with appropriate materials to help them explain the study to applicants and the public; training staff to perform their study-related tasks, and providing ongoing technical assistance to program staff.

3. ***Monitoring entry into the program ensures the integrity of the study.*** Maintaining study integrity is essential for ensuring that staff's efforts are not wasted. It allows problems to be identified and corrected quickly.

I. INTRODUCTION

Job Corps plays a central role in federal efforts to provide employment assistance to disadvantaged youths. The program's goal is to help disadvantaged youths become "more responsible, employable, and productive citizens" by providing comprehensive services, including basic education, vocational skills training, counseling, and residential support. It serves more than 60,000 new enrollees each year at an annual cost of more than $1 billion. The National Job Corps Study, funded by the U.S. Department of Labor (DOL), was designed to provide information about the effectiveness of Job Corps in attaining its goal.[1] The cornerstone of the study is the random assignment of all youth found eligible for Job Corps either to a program group, in which they were permitted to enroll in Job Corps, or to a control group, in which they were not.

Implementing random assignment nationally in an ongoing program presents challenges. Care is necessary to ensure that the way random assignment is implemented neither compromises the ability of the study to provide valid estimates of the impact of Job Corps nor places undue burden on program staff or applicants. Our monitoring of the process suggests that Job Corps staff implemented random assignment procedures very well. Only about 0.6 percent of the intended study population were not randomly assigned, and, so far, only 1.3 percent of control group members have enrolled in Job Corps. This report describes the way random assignment was implemented in this study, the evidence that it was implemented successfully, and the lessons we learned that may be applicable to other program evaluations.[2]

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[1] The study is being conducted by Mathematica Policy Research, Inc. (MPR) and its subcontractors, Battelle Human Affairs Research Centers and Decision Information Resources.

[2] Burghardt et al. (1994) discuss in detail the design of the National Job Corps Study.

A. OVERVIEW OF JOB CORPS

The Job Corps program was established by the Economic Opportunity Act of 1964. In 1969, control of the program was transferred from the Office of Economic Opportunity to DOL. Job Corps was eventually incorporated without changes as Title IV in the Comprehensive Employment and Training Act (CETA) as enacted in 1973 and as amended in 1978, and then into the Job Training Partnership Act (JTPA) of 1982.

Even though Job Corps is one of the most centralized of the DOL programs administered under JTPA, its operational structure is complex. Job Corps encompasses multiple levels of administrative responsibility, several distinct program components, and numerous contractors and subcontractors. Although many other employment and training programs have been decentralized, Job Corps is still administered primarily at the federal level. DOL administers Job Corps through a national office and nine regional offices. The national office establishes policy and requirements, develops curricula, and oversees major program initiatives. The regional offices procure and administer contracts and perform oversight activities, such as reviews of center performance.

DOL contracts out center operations, recruiting and screening of new students, and placement of students in jobs and other educational opportunities after they leave the program. At the time of the study, Job Corps operated 110 centers nationwide. The U.S. Departments of Agriculture and Interior operated 30 centers, called Civilian Conservation Centers (CCCs), under interagency agreements with DOL. The other 80 centers were operated by private contractors selected through a competitive bidding process and are administered through contracts with Job Corps' regional offices. Recruitment and placement are also administered through competitively awarded contracts with the regional offices.

1. Outreach and Admissions

Recruitment and screening for Job Corps are conducted by Outreach and Admissions (OA) agencies, which include private nonprofit firms, private for-profit firms, state employment agencies, and the centers themselves. These agencies provide information to the public through outreach activities (for example, by placing advertisements and making presentations at schools), screen youths to ensure that they meet the eligibility criteria, sometimes assign youth to centers, and arrange for transportation to centers.

To participate in Job Corps, youth must be legal U.S. residents ages 16 to 24. Males 18 or older must be registered with the Selective Service Board, and minors must have the consent of a parent or guardian. Youth must also be disadvantaged (defined as living in a household that receives welfare or has income below the poverty level) and living in a debilitating environment that substantially impairs prospects for participating in other programs. Youth must need additional education, training, and job skills and possess the capacity and aspirations to benefit from Job Corps. They must also be free of serious behavior and medical problems, and they must have arranged for adequate child care when they participate in Job Corps.

2. Job Corps Services

Job Corps is a comprehensive and intensive program. Major Job Corps components include basic education, vocational training, health care and education, residential living (including social skills training), counseling, and job placement assistance. Services in each of these components are tailored to each participant.

Education. The goal of the education component is to enable students to achieve educational attainment as fast as their individual abilities permit. Education programs in Job Corps are individualized and self-paced and operate on an open-entry and open-exit basis. The programs include remedial education (emphasizing reading and mathematics), world of work (including consumer education, driver education, home and family living, health education, and programs designed for individuals whose primary language is not English), and a General Education Development (GED) program of high school equivalency for students who are academically qualified. Some centers also offer some students the opportunity to attend postsecondary education while enrolled in Job Corps. Students are assigned to classes based on the results of diagnostic tests administered during the first few weeks.

Vocational Training. As with the education component, the vocational training programs at Job Corps are individualized and self-paced and operate on an open-entry and open-exit basis. Each Job Corps center offers training in several vocational trades, typically including business and clerical occupations, health occupations, construction trades, culinary arts, and building and apartment maintenance. National labor and business organizations provide vocational training at many centers. In many trades, students gain hands-on experience by working on supervised work projects, such as the construction or rehabilitation of buildings either on center or in the community.

Health Care and Education. Students receive comprehensive health services, including medical examinations and treatment; immunizations; dental examinations and treatment (for participants who remain in the program at least 90 days); counseling for emotional and other mental health problems; and instruction in basic hygiene, preventive medicine, and self-care.

Residential Living. Residential living is the most distinctive component of the Job Corps program and distinguishes it from most other employment and training programs. The idea behind residential living is that, given the disadvantaged environments from which most participants come, the students require a new and more supportive environment to derive the maximum benefits from education and vocational training. All students must participate in formal social skills training activities. The residential living component also includes meals, dormitory life, entertainment, sports and recreation, center government, center maintenance, and other related activities. Historically, regulations had limited the number of slots that can be reserved for nonresidential students to 10 percent, although the JTPA amendments that became effective in July 1993 raised that limit to 20 percent.

Counseling and Other Ancillary Services. Job Corps centers provide counselors and residential advisers. These staff help students plan their educational and vocational curricula, offer motivation, and create a supportive environment. Support services are also provided during recruitment, placement, and the transition to regular life and jobs after Job Corps.

Placement. The final step in the Job Corps process is placement. The placement component focuses on helping students find jobs in training-related occupations with prospects for long-term employment and advancement. Placement contractors are state employment offices or private contractors, and some centers perform placement activities. Placement agencies help students find jobs by providing interviewing and resume-writing assistance and job development and referral services. They are also responsible for distributing the readjustment allowance, a stipend students receive after leaving Job Corps.

3. Recent Job Corps Policy Changes

In response to congressional concerns about the operation of the Job Corps program, new policies were instituted between March and July 1995--during the sample intake for the study. These included introducing a "zero tolerance" (ZT) policy for drugs and violence and a "one strike and you're out" rule to govern terminations of students found guilty of offenses prohibited under the zero tolerance policy. Terminations of students who test positive for drugs or demonstrate behavior inconsistent with Job Corps zero tolerance for violence policy within 30 days of enrollment do not affect a center's performance record.

B. OVERVIEW OF THE NATIONAL JOB CORPS STUDY

The study is addressing the following research questions:

- How effective is Job Corps overall at improving the employability of disadvantaged youth?
- Is Job Corps more or less effective for certain groups of the eligible population?
- What is the Job Corps program "model," and how well is the model implemented in practice?
- What components of Job Corps (such as residential and nonresidential services and contract centers and CCCs) are particularly effective?
- Is Job Corps cost-effective?

To address these questions, the study consists of an impact analysis, a process analysis, and a benefit-cost analysis. We describe each component next.

1. Impact Analysis

The purpose of the impact analysis is to estimate the net impact of Job Corps on participants' postprogram earnings and other employment-related outcomes.

DOL structured the project so that careful consideration would be given in the design phase to whether the study should use random assignment to measure program impacts. Congress had directed DOL, through provisions of the JTPA, to evaluate its training programs using random assignment methods where feasible. The findings of studies using methods other than random assignment to create a comparison group, including a previous study of Job Corps, have been subject to question because of uncertainty about whether the experience of the comparison group provides a valid indication of what the experience of program participants would have been had they not had the opportunity to enroll in Job Corps. Random assignment avoids this problem. Moreover, beginning in the mid-1980s, DOL contracted for a large study of programs funded under Title II-A of JTPA that used random assignment methods and demonstrated the feasibility of using these methods to study ongoing programs.

Yet Job Corps staff were justifiably concerned about the potential burden on individual Job Corps applicants who were selected for a control group and about the public relations problems that would follow from a study design in which some eligible applicants were not permitted to enroll in Job Corps. However, Job Corps serves only a small fraction of the eligible population. A large pool of unserved applicants could potentially be tapped to create a control group without reducing the number of youths served by Job Corps. In light of these circumstances and the need for reliable, credible information about program impacts, a study advisory panel, which included representatives of Job Corps, concluded that a random assignment design was feasible and should be used for the study.

Between November 1994 and February 1996, approximately 6,000 Job Corps-eligible applicants residing in the contiguous 48 states and the District of Columbia were selected randomly for a control group. Control group members were not permitted to enroll in Job Corps for a period of three years, although they were able to enroll in other programs available to them. To maximize the efficiency of the sample, keep the burden on individual recruiting agencies low, and minimize threats to the validity of the evaluation, the control sample was selected from among all new, eligible applicants nationwide.[3] In this way, the burden of the evaluation was spread across all OA agencies.

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[3] There are some exceptions; these are discussed in Chapter II.

Approximately 1 eligible applicant in 14 (seven percent of 81,000 eligible applicants) was assigned to the control group.

During the same 16-month period, about 9,500 eligible applicants assigned to Job Corps were selected for the research sample as members of the program group. This sample includes youth who enroll in Job Corps (about 70 percent of eligible applicants), as well as those who do not enroll, the so-called "no-shows" (about 30 percent of eligible applicants). Although the study's research interest focuses on enrollees, all youth who were randomly assigned, including those who do not enroll at a center, will be included in the analysis to preserve the benefits of the random assignment design.

We will examine five types of outcome measures: (1) employment and earnings; (2) education and training; (3) dependence on welfare and other public transfers; (4) antisocial behavior, such as arrests, crimes committed by and against sample members, and alcohol and drug use; and (5) family formation and childbearing. Impacts will be estimated for subgroups of youths, including those defined by the following baseline characteristics: age, gender, educational attainment, parental status, employment experiences, participation in welfare programs, and previous involvement with the law.

To estimate the impacts of the Job Corps residential component, we will compare the experiences of program and control group youth who, before random assignment, were expected to be assigned to a residential slot. The impacts of the nonresidential program will be estimated by comparing the experiences of program and control group youth who were expected to be assigned to a nonresidential slot. Impact estimates will be obtained in a similar way for those designated for (1) CCC or contract centers; (2) low-, medium-, or high-performing centers; and (3) small, medium-sized, or large centers. Measurements of the impacts of other components (for example, specific occupational training courses and duration of stay in Job Corps) will rely on statistical models of the process by which students are assigned to these components.

We plan to collect survey data on members of the research sample at four points:

1. At baseline, immediately after random assignment
2. 12 months after random assignment
3. 30 months after random assignment
4. 48 months after random assignment

At baseline, we attempted telephone interviews with all sample members and in-person interviews with a random clustered subsample of those sample members who did not complete a telephone interview. The target sample for the 12-month follow-up interview includes (1) all sample members eligible for in-person interviews at baseline, and (2) those not eligible for in-person interviews at baseline who completed the baseline interview by telephone. In the 30-month and 48-month follow-up interviews, we will attempt to conduct interviews with all sample members who have completed at least one interview. In the 12-month follow-up interview, we first attempted to interview each member of the target sample by telephone. When these attempts were unsuccessful, we attempted to conduct the interview in person. A similar interviewing strategy will be used for the remaining follow-up interviews.

We also plan to collect additional data on sample members. We plan to collect administrative data on social security earnings on all sample members, and earnings data from Unemployment Insurance (UI) administrative records on sample members in 17 randomly selected states. These data will be used to assess (1) whether nonresponse to the baseline and follow-up surveys affects survey-based earnings impact estimates, and (2) whether administrative and survey earnings data yield similar estimates of program impacts on earnings. In addition, we will administer basic skills tests to a subsample of the research sample in conjunction with the 30-month follow-up interview.

2. Process Analysis

The process analysis documents the Job Corps program model, assesses how the Job Corps program model is actually implemented in practice, and identifies important variations in program elements across centers or agencies that might affect student outcomes.[4] It also provides data that can be used to improve Job Corps operations and help develop other training programs for disadvantaged youths. Data collected for the process analysis will play a significant role in the analyses of the component and subgroup impacts and will enhance the interpretation of findings from both the impact and benefit-cost analyses.

Data for the process analysis are from three sources:

1. ***Site Visits and Interviews.*** Weeklong site visits to a representative sample of 23 Job Corps centers, telephone interviews with staff at a linked sample of representative OA and placement agencies, and interviews with national office and regional office staff.

2. ***Mail Surveys of Job Corps Centers.*** This nationwide mail survey will enable us to develop comprehensive measures of key program characteristics for all Job Corps centers.

3. ***Program Administrative Records.*** These include data on participants' experiences maintained in the Job Corps Student Pay, Allotment, and Management Information System (SPAMIS) and in reports submitted by contractors to the national and regional offices.

3. Benefit-Cost Analysis

The primary purpose of the benefit-cost analysis is to assess whether the benefits of Job Corps are commensurate with the substantial public resources invested in the program. The benefit-cost analysis provides a unified, consistent framework for weighing the many potential benefits and costs of the program, including those that cannot be measured in dollars. By examining costs from the perspective of participants, nonparticipants, and the government, as well as from that of society as a whole, the benefit-cost framework provides information about the distribution of benefits and costs.

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[4] See Johnson, Terry, et al. "National Job Corps Study: Report on the Process Analysis." Princeton, NJ: Mathematica Policy Research, Inc., February 1999.

The most important benefits that will be valued are as follows:

- Increased output that may result from the additional employment and productivity of youth who have participated in Job Corps
- Increased output produced by the youth while in Job Corps
- Reduced criminal activity
- Reduced use of other services and programs, including welfare and other education and training programs

Other benefits to society that are difficult to appraise accurately include improvements in participants' quality of life, self-esteem, health, and relationship skills, and reduction in crimes committed against participants. These benefits will be considered qualitatively.

The most important costs of Job Corps include the following:

- Program operating costs
- Opportunity cost of attending Job Corps (primarily the earnings foregone while the student attends Job Corps)

C. ORGANIZATION OF THE REPORT

The successful implementation of random assignment is critical to obtaining valid estimates of the impact of Job Corps on the youth that it serves. In the rest of the report, we describe how random assignment was successfully implemented in the National Job Corps Study and how the study affected program operations. We begin in Chapter II by describing key design issues that arose in implementing random assignment, including the point in the intake procedures that random assignment took place, the sample frame, the planned sampling rates, informed consent procedures, and the need for key data to be collected prior to random assignment. Chapter III describes how random assignment procedures were implemented, including the process of planning for the implementation, the roles and responsibilities of Job Corps staff and MPR, and the way procedures were adjusted to changes during the intake period. Chapter IV describes how we monitored the sample buildup to ensure that we would obtain a sufficient sample. It also describes the results of the monitoring and our need to change the sampling rates and lengthen the intake period. Chapter V describes how we monitored the integrity of random assignment and provides evidence that program staff implemented random assignment well. Chapter VI discusses the impacts of the study's random assignment procedures on Job Corps program operations. Lessons about the implementation of random assignment learned from this study and possible implications for other studies are discussed in Chapter VII.

II. DESIGN ISSUES

The central objective of the National Job Corps Study is to estimate the impact of Job Corps on the earnings and other employment-related outcomes of program participants. Because a randomized design is most likely to produce valid impact estimates, the evaluation is based on random assignment.[1] Our challenge was to implement random assignment in a way that maintained the ability of the evaluation to provide valid estimates of the impacts of Job Corps while minimizing the impact of the study on the program staff and applicants. This chapter discusses some issues that relate to the implementation of random assignment and that affected the study design.

The chapter begins by describing the point at which random assignment occurred in the Job Corps application process. Section B describes the choice of the sample frame. The planned sampling rates into the control and program research groups are described in Section C. Section D discusses obtaining informed consent from study participants. Finally, Section E discusses data we collected from applicants prior to random assignment.

A. POINT OF RANDOM ASSIGNMENT

The point in the Job Corps intake process at which random assignment is performed has important implications both for the quality and type of information that can be derived from the study and for its operational viability. We performed random assignment on all Job Corps applicants after they were determined to be eligible for the program and were ready to be, but had not yet been, assigned to a slot at a center. This section describes the rationale for choosing this point of random assignment. We begin by providing an overview of the intake process.

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[1] Job Corps staff frequently asked why we did not use eligible youth who did not enroll in the program, the so-called "no-shows," as a comparison group. We rejected this design because no-shows are likely to differ from Job Corps enrollees in unobserved ways that are correlated with outcomes of interest.

1. Overview of the Job Corps Intake Process

OA agencies recruit and screen applicants for Job Corps. OA counselors have the most direct contact with youth who apply to Job Corps. When random assignment was implemented, OA counselors used the Job Corps ETA-652 application form to collect information from the applicant (over the telephone or in person).[2] OA counselors are also responsible for obtaining any additional information from appropriate authorities needed to determine an applicant's eligibility (for example, when an applicant has a history of health or behavioral problems). All this information is used to determine Job Corps eligibility.

The organization or individual responsible for determining eligibility of youth who apply to Job Corps varies by region and, within a region, even by center. Depending on the situation, OA, center, or regional office staff may have responsibility for eligibility determination. First, applicants identified as having health or behavioral problems require a special medical, behavioral, or mental health review before they can be determined eligible for Job Corps. Typically, either regional office or center staff review these cases and make eligibility decisions. Second, in some centers in certain regions, OA staff located at the center where the student will be assigned are responsible for final determination of eligibility, even if they did not recruit the applicant. This latter type of case applies to "regular" applicants as well as to those requiring a special medical, behavioral, or mental health review.

After applicants are determined eligible, OA counselors typically notify them of their acceptance to Job Corps and complete any remaining enrollment requirements. The youth are usually then assigned to a center, given a departure date, and provided with arrangements (for example, a bus ticket) for travel to the center. The time between when an applicant is determined eligible and when the applicant is assigned to a center for enrollment varies over time, by region, and by type of student. At times, some students (especially male students seeking residential slots) in some regions have waited for many months before assignment to a center.

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[2] Currently, many OA counselors input information using an electronic data-entry program.

2. Issues Considered in Choosing the Point of Random Assignment

We considered four possible points of randomization:

1. ***At Application.*** Random assignment would occur after an application form was completed.
2. ***After Applicant Eligibility Is Determined--Our Approach.*** Random assignment would occur as applicants entered a queue for assignment to a center slot.
3. ***After an Open Slot Is Assigned.*** Random assignment would occur after applicants leave the queue for assignment to a center slot.
4. ***At Enrollment at a Center.*** Random assignment would occur after applicants enroll at a center.

In choosing the point of random assignment, we balanced several, often competing, research and operational objectives:

Maximizing the Ability to Address Useful Policy Questions. The point of random assignment determines the policy questions that can be addressed with a simple comparison of the means of outcome variables between the program and control groups. The later in the application process random assignment occurs, the greater our ability to address questions about the impact of Job Corps on those who *enroll,* without statistically modeling the decision to enroll. As estimating the impact of Job Corps on enrollees requires a minimum number of enrollees, not applicants, the later in the application process random assignment takes place, the smaller the sample required for a given level of precision.

Minimizing Disruption to Normal Job Corps Application Procedures. Minimizing the disruption to normal Job Corps procedures is important for two reasons. First, the validity of the results depends on altering the program and its application procedures as little as possible. Second, as applicants from all OA agencies (with a few exceptions) will be subject to random assignment, it is important that random assignment is easy to implement.

Minimizing Program Impacts Prior to Random Assignment. The process of applying for Job Corps may affect youth even before they enroll at a center. In anticipation of enrolling in Job Corps, youth may forgo other job or training opportunities or make other important decisions about their lives, and they are likely to have invested emotionally in the program. The earlier in the intake process random assignment takes place, the less likely that applicants would be affected by the application process prior to random assignment.

Minimizing the impact of the program on applicants prior to random assignment is important for two reasons. First, the validity of our results would be compromised if control group youth were significantly affected by their contact with Job Corps. Second, the less they are affected by the program, the less applicants lose from being assigned to the control group. Reducing the negative impact on control group members is an important ethical consideration and makes the study more acceptable to program operators.

Minimizing the Impact of Random Assignment on Applicants. The existence of random assignment reduces an applicant's expectation of being able to participate in Job Corps. If random assignment occurs late in the application process, random assignment may itself affect the behavior of applicants. For example, an applicant whose expectation of entering Job Corps falls may be more likely to take other training or job opportunities than to wait to see if he or she is allowed to enroll in Job Corps. The ability to generalize our impact estimates would be compromised if the existence of the study altered applicants' behavior.

3. Rationale for the Chosen Point of Randomization

We performed random assignment on all Job Corps applicants immediately after they were determined eligible for Job Corps and were ready for assignment to a center but before they were assigned to an open slot at a center. We believe this represented the best compromise among the different objectives. The resulting sample frame included only applicants who had been fully approved for the program after any routine court verifications, reviews by regional offices, and quality assurance checks on application folders.

Performing random assignment after an application was approved had the following advantages:

- It allowed us to address a useful and well-defined policy question: What are the impacts of Job Corps on eligible applicants?
- It provided an opportunity to obtain information on the reasons that about 30 percent of eligible applicants fail to enroll at a center.
- Program staff could incorporate random assignment into existing application procedures relatively easily--it became an additional check on eligibility.
- Any impact the program had on applicants not yet determined to be eligible (and, thus, before random assignment) was likely to be small and short-term.
- Random assignment at this early point in the application process was unlikely to have large effects on the behavior of applicants.
- The point at which youth are found eligible for Job Corps could be defined consistently across different OA agencies and regions.

We chose not to randomize when applicants first completed an application, because nearly 40 percent of the sample would never enroll in Job Corps, as a result either of being found ineligible or of having lost interest. Thus, we would require a much larger sample to ensure precise estimates of the impact of Job Corps on those who enroll.

We chose not to randomize after the applicant had been offered an open slot, because it could take months to assign an applicant to an open slot. By the time they have been offered an open slot, applicants, expecting to enroll in the program, may have invested a great deal in the program both emotionally and in forgone alternative opportunities. Random assignment itself may affect applicants' behavior if it occurs this late in the process. A further disadvantage of this point is that because center assignment procedures vary slightly by region, the sample frame would not be consistent across regions.

We rejected randomizing at enrollment at a center because it would involve an unacceptable burden on the control group youth who would have to be sent home after they arrived at a center, and it would be extremely disruptive to normal center operations. In addition, there would be sufficient time between application and enrollment at a center that the program could have an impact on the lives of youth prior to random assignment.

B. CHOICE OF SAMPLE FRAME

Early in the study design process, we decided that the sample frame should include all eligible applicants for Job Corps during an intake period of about one year. While we adhered to this basic decision, the sample frame was refined to account for issues that arose in implementing the study. In summary, the sample frame for the study consisted of all youth who met the following criteria:

- Applied for Job Corps and were determined eligible for the program
- Applied to Job Corps between November 17, 1994, and December 16, 1995, and were sent for random assignment on or before February 29, 1996

- Applied to Job Corps at any OA agency with a primary office located in the contiguous 48 states or the District of Columbia

- Had not previously participated in Job Corps (were not "readmits")

- Were not applicants for one of seven special Job Corps programs

This section describes our rationale for choosing this sample frame.

1. Clustered Versus Nonclustered Sample Design

The Job Corps study is based on a fully national sample. With a few exceptions (discussed next), the members of the program and control groups were sampled from all OA agencies (including centers that recruit) in all parts of the United States, rather than from only some OA agencies in certain areas. We chose a fully national sample for two reasons. First, impact estimates made from a national sample will be more precise than estimates made from a clustered sample of the same size. Second, a nonclustered design spread the burden of random assignment across all OA agencies and Job Corps centers, reducing the burden on any one agency.

2. Exclusions from the Sample Frame

The sample frame comprised all youth who applied and were found eligible for Job Corps at any OA agency, with the following exceptions: (1) youth recruited outside the contiguous 48 states and the District of Columbia, (2) applicants who had previously participated in Job Corps, and (3) applicants for some special Job Corps programs.

a. Youth Recruited Outside the Contiguous 48 States and the District of Columbia

Applicants from four OA agencies--those with primary offices located in Alaska, Hawaii, Puerto Rico, and the Virgin Islands--were excluded from the sample frame because of the high costs of interviewing sample members and implementing random assignment outside the U.S. mainland.[3]

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[3] In program year 1995, about three percent of Job Corps center slots were outside the U.S. (continued...)

b. Applicants Who Had Previously Participated in Job Corps

Under certain circumstances, youth who have previously participated in Job Corps can apply for readmission to the program. These applicants for readmission, or readmits, were excluded from the sample if they had enrolled in Job Corps before random assignment began. This ensured that no member of the control group had previously participated in Job Corps.

c. Youth in Special Programs

Within Job Corps, there are special programs that differ in their funding, admission criteria, referral process, or services they provide. Seven special programs, containing less than 0.5 percent of all center slots nationwide, were exempted from random assignment for one or both of the following reasons:

- The eligibility criteria for the special program differed from the regular Job Corps eligibility requirements.[4] Unless Job Corps plans to change its eligibility requirements, youth who are eligible only under these special programs are not relevant to this study.
- The services provided by the special program differed substantially from those provided by the regular Job Corps program. Therefore, the sample frame did not include youth who would receive atypical Job Corps services.

We describe these special programs and the reasons for their exclusion in more detail in Appendix A.

d. No "Wild Cards"

OA agencies were not allowed to exclude an applicant from random assignment if the applicant met the criteria for inclusion in the sample frame. We considered giving OA agency staff the

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[3](...continued)
mainland.

[4] As specified in Job Corps' *Policy and Requirements Handbook*.

discretion to exclude from random assignment a limited number of particularly needy applicants during the study (referred to as "using wild cards"). We chose not to do so, because Job Corps staff believed that the provision would be difficult to implement consistently and could lead to an excessive number of exemptions from random assignment.

C. PLANNED SAMPLING RATES

This section discusses the rate at which we planned to sample eligible Job Corps applicants into the control and program research groups and the changes that were made to our plans to address concerns raised by Job Corps staff. The sampling rates used at the beginning of the study are summarized in Table II.1. The rate at which applicants are sampled into the control group varies by the gender of the applicant and whether the applicant resides in an area with a low concentration of female nonresidential applicants. The rate at which applicants are sampled into the program research group differs according to whether the OA counselors think the applicant would be assigned to a residential or nonresidential slot.[5] About nine months after the beginning of sample intake, some sampling rates were raised above the planned levels to compensate for the lower-than-expected sample buildup. These changes are discussed in Chapter IV.

1. Sampling for the Control Group

The initial sample design for the study specified that seven percent of eligible Job Corps applicants in the sample frame would be randomly assigned to the control group. However, we modified this sample design because Job Corps staff were concerned that, as a result of the

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[5] During the study, OA counselors were asked to predict whether an applicant would be assigned to a residential or nonresidential slot. We will estimate the impact of the residential (nonresidential) component of Job Corps by comparing the outcomes of youth with a designated assignment to a residential (nonresidential) slot in the program-research group with the outcomes of youth with the same designated assignment in the control group.

TABLE II.1

PLANNED SAMPLING RATES OF ELIGIBLE APPLICANTS INTO THE CONTROL AND PROGRAM RESEARCH GROUPS

Group	Sampling Rate (Percent)
Control Group	
Females in Areas with Low Concentrations of Nonresidential Female Job Corps Applicants	5.0
Females in Areas with High Concentrations of Nonresidential Female Job Corps Applicants	8.0
Males in Areas with Low Concentrations of Nonresidential Female Job Corps Applicants	8.0
Males in Areas with High Concentrations of Nonresidential Female Job Corps Applicants	8.0
Program Research Group	
Applicants with a Planned Assignment to a Residential Slot	10.7
Applicants with a Planned Assignment to a Nonresidential Slot	15.4

difficulties experienced by OA agencies recruiting females for residential slots, the study would cause those slots to go unfilled (even with additional funding for recruitment).

We considered and rejected two sample designs before choosing the sample design summarized in Table II.1. First, we considered a sample design in which all females were sampled into the control group at a lower rate than males. However, because females filled about two-thirds of nonresidential slots, reducing the rate at which females are sampled into the control group would have significantly reduced the number of control group members with a nonresidential designation. We rejected this sample design because this approach would have compromised our ability to estimate the effectiveness of the nonresidential component of Job Corps, an issue of considerable policy interest.

Second, we considered lowering the sampling rate into the control group of female applicants with a residential designation and maintaining a higher control group sampling rate for other female applicants. However, we were concerned that this approach would corrupt the process of designating female applicants to residential slots. For example, OA counselors may incorrectly record that they thought a female applicant would be assigned to a residential slot to reduce the probability that the applicant is assigned to the control group. To discourage this behavior by OA counselors, we considered preventing female students, for a period of six months after they applied, from switching from a residential to a nonresidential slot. However, Job Corps staff felt this would intrude on program operations to an unacceptable degree. Thus, we rejected a sample design with sampling rates into the control group based on the designated assignment to a residential or nonresidential slot.

In the chosen sample design, summarized in Table II.1, females were sampled into the control group at rates that varied with the area in which they resided. Females from areas in which there were many female nonresidential applicants were sampled at the same rate as males. Females from other areas were sampled at a lower rate (five percent). All males, irrespective of where they lived, were sampled into the control group at a rate of eight percent. This design reduced the rate at which female residential applicants were sampled into the control group yet maintained the number of applicants who were designated for a nonresidential slot.

2. Sampling for the Program Research Group

The rate at which eligible applicants were sampled into the program research group depended on whether the applicant was designated for a residential or nonresidential slot and did not vary with the applicant's gender or area of residence. (Table II.1 shows the sampling rates that were used at the beginning of the study.) Applicants designated for a residential slot were sampled into the program research group at a rate of 10.7 percent. This is about one-and-a-half times the weighted average of the sampling rate into the control group of applicants designated for a residential slot in areas with low concentrations of nonresidential female applicants (five percent) and applicants designated for a residential slot in areas with a high concentration of nonresidential female applicants (eight percent).[6] Applicants designated to a nonresidential slot were sampled into the program research group at 15.4 percent, about twice the weighted average of the sampling rates into the control group of applicants designated for a nonresidential slot. The higher sampling rate of applicants designated for a nonresidential slot ensures that the evaluation can address the effectiveness of the small nonresidential component without compromising its ability to address the effectiveness of the large residential component.

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[6] As the designation to the program research group imposes a minimal burden on the youths, the OA counselors are unlikely to wish to manipulate whether the applicant is assigned to the program research group or the nonresearch program group by lying about the applicant's predicted assignment to a residential slot. Moreover, the counselors were not told of the difference in the sampling rates and, because they were not told which applicants were assigned to the program research group, they could not infer that sampling rates varied by the predicted assignment to a residential or nonresidential slot.

D. NEED FOR INFORMED CONSENT

For ethical reasons, informed consent must be obtained from all people who participate in experimental studies, including social policy studies based on random assignment. In the National Job Corps Study, all Job Corps applicants included in the sample frame were informed of the study and asked whether they would agree to participate in the study. From the applicant's perspective, participation in the study involved (1) the possibility of being randomly assigned to the control group and not being allowed to enroll in Job Corps for three years, and (2) being asked to complete a baseline interview and two or three additional interviews. Applicants were required only to acknowledge that they were told about the study and what it implied; they were not required to agree that they would go to Job Corps if they were in the program research group or respond to interviews in the study.

Applicants who refused to give their consent were not allowed to enter Job Corps until random assignment was over (about one year later). This restriction was essential. Applicants would have had no incentive to consent to the study if they knew that they could refuse to participate and still enter Job Corps in a nonresearch group. Those who would have consented, and therefore would have been in the research group, might have differed in important ways from the usual Job Corps applicants.

We also needed consent to access, collect, and use information for the study from records collected by public agencies, such as public assistance programs (for example, Aid to Families with Dependent Children [AFDC], Medicaid, and the Food Stamp Program), the UI program, child-support enforcement, and the criminal justice system. All applicants in the sample frame were asked to give consent for this. Applicants who did not consent to this data collection but agreed to participate in the study were still allowed to enroll in Job Corps and were randomly assigned in the same way as other applicants.[7]

E. DATA NEEDED TO PERFORM RANDOM ASSIGNMENT

To perform and monitor random assignment, we needed to collect some information about each applicant in the sample frame *prior* to random assignment, including information needed (1) to identify the applicant, (2) to check that the applicant was in the sample frame, and (3) to determine the appropriate sampling rate to apply. Identifying information on the applicant included the applicant's full name (first name, last name, and middle initial), social security number, and (because social security numbers are sometimes missing or recorded incorrectly) the applicant's gender and date of birth. Information used to check that the applicant was in the sample frame included the date the applicant was interviewed by an OA counselor and whether the applicant was a new applicant or a readmit. Information needed to determine the appropriate sampling rate to apply included whether the applicant was designated for a residential or a nonresidential slot and the area in which the applicant resided.

Some of the information was collected from the Job Corps application form, the ETA-652. To collect other needed information, however, we designed a special supplement to the ETA-652 form to be completed at the same time. This supplement also collected other information needed for the study, including information needed to locate the applicant in the future (such as the applicant's current address and telephone number, and names, addresses, and telephone numbers of up to four people who would probably know the whereabouts of the applicant in the future) and information needed for the impact analysis (such as predicted assignment to a contract center or CCC, the estimated time between application and departure to a center, and some information on criminal history). Appendix B provides a list of all data items collected prior to random assignment.

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[7] Consent for study participation and access, collection, and use of records data were obtained by asking the applicant (and the applicant's parent or guardian if the applicant was a minor) to sign a form, the National Job Corps Study Agreement to Participate and Consent for Records Release form. The procedures for obtaining consent are discussed in Chapter III.

III. IMPLEMENTATION OF SAMPLING PROCEDURES

The correct implementation of sampling procedures was critical to the success of the study and the validity of its impact estimates. Our goal was to implement procedures that minimized the burden on program applicants and program staff yet maintained the ability of the study to provide valid estimates of the impact of Job Corps. This chapter describes the process of planning for the implementation of random assignment, the procedures involved in random assignment, and the process of adjusting the study procedures to procedural changes in Job Corps outreach and admissions (OA) operations during the study period.

The sample intake process for the study consisted of five steps. First, Job Corps OA counselors explained the study to prospective applicants, secured their agreement to participate, and gathered a limited amount of information about each applicant specifically for the study. Second, after an applicant was determined to meet programmatic criteria for admission, OA staff transmitted to MPR three study forms for each new applicant in the sample frame: (1) the Job Corps ETA-652 Application form, (2) the National Job Corps Study Supplement to the ETA-652, and (3) the National Job Corps Study Agreement to Participate and Consent for Records Release form. These forms are presented in Appendix C. Third, after receiving the three study forms, MPR processed each application, ensured that applicants were in the sample frame, and randomly assigned each applicant in the sample frame to the control, program research, or program nonresearch group. Fourth, MPR notified Job Corps staff and control group youth of the random assignment results. Fifth, OA staff arranged for transportation to a Job Corps center for program group members and informed control group members that they would not be able to enroll in Job Corps for three years.

The sample intake period began on November 17, 1994, and continued for 16 months, until February 29, 1996.[1] More than 1,300 Job Corps OA counselors nationwide were directly involved in random assignment, and approximately 110 Job Corps OA coordinators and approvers transmitted materials to MPR. During the sample intake period, MPR processed nearly 81,000 applications in the sample frame.[2] The final sample consists of 5,977 control group members, 9,409 program research group members, and 65,497 program nonresearch group members.

A. PLANNING FOR THE IMPLEMENTATION OF RANDOM ASSIGNMENT

Since minimizing problems associated with the implementation of random assignment is key to the success of a study based on random assignment, considerable effort and resources were devoted to the planning for the implementation of random assignment. Before the sample intake period, we spent more than a year planning for random assignment. Throughout the planning process, we consulted frequently with Job Corps national, regional, and OA staff. This was critical both to gain the cooperation of Job Corps staff and to develop study procedures that could be integrated into the existing Job Corps system in a way that protected the validity of the research design and imposed as little burden as possible on the program.

This four-part section describes the process of planning for the implementation of random assignment. First, we discuss the design of preliminary procedures. Second, we discuss the presentation of random assignment procedures to OA managers. Third, we discuss the training of OA staff on random assignment procedures. Finally, we discuss the use of a random assignment trial period.

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[1] Appendix D presents a chronology of the planning for and implementation of the National Job Corps Study.

[2] In addition, MPR processed nearly 33,000 applications of youth outside of the sample frame. Chapter IV discusses these cases in more detail.

1. Design of Random Assignment Procedures

To develop random assignment procedures, we needed to understand Job Corps intake procedures fully. Because these procedures differ by region, we began the planning phase by discussing with staff in each regional office the specific intake procedures they used. In addition to these regional discussions, we met with members of the Advisory Panel (which included senior Job Corps staff) to discuss the randomized design and implications for implementation.

As a result of these discussions, DOL concluded that a random assignment design was feasible and preferable to a nonrandomized comparison group design and decided to use random assignment for the National Job Corps Study. At this time, we decided that random assignment should occur immediately after an applicant is found eligible for Job Corps but before he or she is assigned to an open slot. We also proposed specific procedures for implementing random assignment.

To refine the proposed procedures for conducting random assignment and to design the ETA-652 Supplement and Agreement to Participate form, we conducted further discussions with Job Corps national, regional, and OA staff in eight states. We also prepared a draft of a training manual for Job Corps staff. This draft manual described the study and the proposed random assignment procedures (Homrighausen and McConnell 1994). The manual was customized for each region, reflecting variations in intake procedures and issues specific to each region.

The Department of Labor (DOL) recognized that recruiting additional eligible youths for Job Corps in order to form the study control group would require that OA agencies expend additional resources to bring in more eligible applicants. Accordingly, the National Office of Job Corps provided additional resources to the regional offices to increase outreach and recruitment efforts. Overall, the OA budgets at the regional level were increased by about seven percent. The regional offices then decided how to allocate the additional funding.

2. Presentation of Random Assignment Procedures to OA Managers

In June and July 1994, we met with senior managers of each agency conducting outreach and admissions counseling and regional office representatives in each region to obtain feedback on our proposed procedures. We had two objectives in these second-round meetings: (1) to inform managers of all OA agencies about the study and, specifically, about the requirement to create a control group who would not be permitted to enroll in Job Corps for three years; and (2) to obtain feedback on the proposed random assignment procedures and the process of training intake staff in them. Through these discussions, we gathered OA and regional office staff input on a range of issues relating to operating and monitoring the random assignment process.[3]

As a result of their concerns and input, we did the following:

- ***Developed a Job Corps Study brochure and question and answer (Q&A) sheet.*** Program staff suggested that written materials would help them explain the study to applicants and their parents and answer commonly asked questions. In response, we produced a brochure entitled "Looking to the Future: The National Job Corps Study" and a Q&A sheet entitled "Looking to the Future: Questions and Answers on the National Job Corps Study (Q&A)." A copy of each is displayed in Appendix C.

- ***Pledged to return random assignment results within 48 hours.*** Job Corps staff needed MPR to process and return random assignment results rapidly so that the usual Job Corps intake processes would not be disrupted. In addition, we agreed to return results within 24 hours for special need ("expedited") cases.

- ***Instituted a toll-free study hot line.*** Because of the need to respond to concerns and complaints from control group youth, we established a toll-free telephone number, or hot line, for the study. The hot line operated during the sample intake period and continued to operate through February 1999.

- ***Developed an official control group notification letter.*** A personalized copy of a letter signed by DOL officials was mailed to each control group member. The letter notified each youth of his or her control group status and its implications for enrollment into Job Corps. A copy is displayed in Appendix C.

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[3] In addition to the concerns listed here, Job Corps staff also raised the concern that it would not be operationally feasible to prohibit females from switching from a residential to a nonresidential slot. This prompted us to revise our proposed sampling plan for the study, as discussed in Chapter II.

- ***Revised and improved OA study training materials.*** After incorporating OA staff comments and suggestions into the training materials, we pretested materials with various Region 4 OA staff.

3. Training OA Staff

In late summer and fall 1994, regional office staff arranged meetings at which senior research team members made presentations to OA counselors, supervisory staff, and people who were to be responsible for transmitting information to MPR. In some regions, the presentations were part of regular annual meetings of all OA staff. In other regions, special meetings were held. These sessions were used to explain the need for the study and secure support for it, to familiarize OA staff with materials prepared to facilitate explaining the study to prospective applicants and interested community members, to explain the Agreement to Participate form and data to be collected through the ETA-652 Supplement, and to explain the procedures for submitting data to MPR and for receiving notification of research status. Altogether, about 900 OA counselors and coordinators from approximately 100 OA agencies participated in the training sessions.

4. Random Assignment Trial Period

Immediately after receiving Office of Management and Budget (OMB) approval for the study forms, we sent copies of them to OA staff. To test and refine submission, processing, and notification procedures, we instituted a random assignment trial period. OA agencies were asked to follow random assignment procedures from November 1, 1994, onward, even though random assignment did not officially begin until November 17, 1994. During this trial period, MPR processed the applications but did not randomly assign the applicants. "Dummy" results were returned to the Job Corps agencies. OA staff were informed that these first two weeks served as a trial period and that no control group members would be selected. The trial period was valuable for (1) refining study procedures; (2) answering questions about operational procedures and study requirements; (3) encouraging regular and complete submission of materials; (4) achieving efficiency and timeliness in MPR's processing; and (5) developing rapport between Job Corps and MPR staff.

B. IMPLEMENTING RANDOM ASSIGNMENT PROCEDURES

Implementing the random assignment process required the participation of Job Corps staff from OA agencies, centers, and regional offices nationwide. To ensure that it was implemented correctly, however, it was important that MPR (and not Job Corps) conduct the actual random assignment. In this section, we discuss the methods used to integrate random assignment into the Job Corps intake process, the expected roles and responsibilities of OA and center staff, the procedures used by MPR to randomly assign cases, and the mechanisms used to respond to questions and concerns about the study from Job Corps staff and applicants.

1. Integrating Random Assignment into the Job Corps Intake Procedures

The random assignment procedures in the Job Corps study were designed to build on the existing OA agency operating framework and provide the flexibility to accommodate differences across OA agencies and regions nationwide. Soon after applicants were determined eligible for Job Corps, and before they were notified of their eligibility and arrangements were made for center enrollment, information on the applicant was sent to MPR for random assignment. The random assignment process effectively added one additional eligibility check to the usual Job Corps screening and admissions process; that is, only program group members were eligible for Job Corps.

OA staff initiated the random assignment process by transmitting to MPR the three forms necessary for random assignment--the ETA-652, the Supplement to the ETA-652, and the

Agreement to Participate form. These three forms were sent for each eligible, new Job Corps applicant in the sample frame.[4]

The least disruptive way to integrate random assignment into Job Corps intake procedures was for one of two individuals to initiate random assignment: (1) the one who determines eligibility of applicants, or (2) the one who first handles the folders of approved applicants after the determination of eligibility and before the assignment to a center. These people had easy access to the application folders and the information necessary for random assignment. In most cases, this person was an OA agency director, manager, or other staff member; in a smaller number of cases, this person was a center or regional office staff member. Accordingly, to facilitate the flow of information between MPR and Job Corps staff, MPR requested that (1) OA agencies appoint an "OA study coordinator" to serve as a liaison with MPR, and (2) centers or regional offices that determine eligibility of applicants appoint a "study approver" to serve as a liaison with MPR. The bulk of applications submitted to MPR were from OA coordinators. Applications in five of the Job Corps regions were submitted by both OA coordinators and center or regional approvers.

2. Job Corps OA and Center Staff Roles

OA counselors, OA study coordinators, study approvers, and center staff all performed critical functions that contributed to successful implementation of random assignment. OA coordinators and approvers were ultimately responsible for upholding two key principles of the random assignment process: (1) all eligible Job Corps applicants in the sample frame were to be subject to the study's random assignment procedures, and (2) applicants assigned to the control group were not to enroll in a Job Corps center for three years after random assignment. To minimize disappointment for applicants and disruption to the usual Job Corps intake process, study procedures specified that OA and approving staff wait for notification from MPR that applicants were assigned to the program group before telling the youths that their application was approved, assigning them to a center, giving them a departure date, or arranging for transportation. Likewise, center staff were not to enroll control group youth in centers.

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[4] For sample monitoring purposes, however, MPR required OA coordinators and approvers to submit the ETA-652 Form to MPR for all readmit applicants. This helped MPR monitor the flow of readmits into Job Corps.

OA counselors, as frontline staff, had the most frequent and direct interaction with youth who applied to Job Corps. Accordingly, OA counselors were responsible for (1) explaining the Job Corps study and its objectives, rationale, and implications to applicants and their families; and (2) informing youths of their status as control group members. These tasks were often difficult, since some applicants and their families were skeptical of the study and some control group members were incredulous and distressed about their selection into the control group.

In sum, the role of OA staff and center and regional approvers involved the following seven basic steps, which were performed throughout the sample intake period:

1. During the application interview, individual OA counselors explained the National Job Corps Study and its objectives to all new applicants.
2. Individual OA counselors completed the ETA-652 and ETA-652 Supplement and secured a signed Agreement to Participate form for all new applicants in the sample frame.
3. Individual OA counselors forwarded completed forms to OA study coordinators or appropriate study approvers for all eligible applicants.
4. After the determination of eligibility, OA study coordinators or approvers submitted the three study forms to MPR. MPR performed random assignment and notified the OA coordinator or approver of the results.[5]
5. The OA coordinator or approver notified the original OA counselor and the individual who currently held the applicants' folders about the random assignment status.

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[5] OA staff were notified of a youth's status as a program or control group member; however, they were not told if program group members were in the research or nonresearch group.

6. The individual holding the folders recorded the status as a program or control group member in the "applicant's research status" box on the ETA-652 Supplement. This person also verified that copies of the study forms were included in the applicant's permanent folder.

7. The OA counselor notified program group members of their acceptance to Job Corps and took the steps necessary to enroll them in centers. The OA counselor also informed control group members that, as a result of the study, they were essentially ineligible for Job Corps and could not enroll in any Job Corps center for a three-year period. It was intended that OA counselors notify control group members via telephone and refer them to other programs or services in the same manner that they would refer other applicants who did not enroll in Job Corps.

Center staff, other than center-based OA and approving staff, had secondary responsibility for ensuring that youths whose application had not been sent to MPR for random selection and control group members did not enroll in centers. As part of the usual Job Corps intake process, center staff receive and review applicant folders before youth enroll in centers. At the outset of the study period, the national office directed Job Corps center staff to enroll only those students who had been subject to random assignment and selected into the program group. Before an assigned youth departed for enrollment in a Job Corps center, center staff were instructed to refer to the box labeled "applicant's research status" on the ETA-652 Supplement as evidence of the youth's random assignment into the program group. If a new applicant was not randomly assigned or was assigned to the control group, center staff were to notify the OA counselor immediately that the youth should not be allowed to depart for the center and that his or her application should be submitted to MPR for random assignment. If a control group member arrived at the center, center staff were to immediately provide the youth with return transportation. Since a very small percentage of applicants arrived at centers unassigned or as control group members, it is not possible to determine to what extent center staff actually followed these steps.

3. MPR's Procedures for Performing Random Assignment

The ongoing processing was a major operational challenge given the large number of applications, the amount of information processed for each application, the geographic dispersal of Job Corps OA staff, and MPR's promise to return random assignment results to OA coordinators and approvers within 48 hours after receiving complete application materials. In this section, we outline each of the steps in the random assignment process.

a. Collecting Random Assignment Materials

MPR recommended that study coordinators and approvers submit information to MPR in weekly batches. Since most OA agencies operated on a regular weekly schedule of assigning and enrolling applicants to Job Corps, a list of approved applicants could be submitted for random assignment once a week in conjunction with the usual approval and assignment process. Half of all OA coordinators and approvers submitted batched applications once a week. Only 10 percent of OA coordinators and approvers submitted applications less than once a week. The rest submitted applications more than once a week.

The advantage of conducting random assignment once a week rather than more frequently was that it promoted a more even distribution of control group members across OA agencies and allowed for closer adherence within a given OA agency to the program and control group selection rates.[6] This was because MPR could guarantee a maximum number of control group members per batch.

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[6] Since batches were randomly assigned by OA organization, MPR could not ensure even distribution of control group members across the different offices within a given OA organization. For instance, early in the study, one of the individual OA offices from the Florida Employment Security (FLES) agency was randomly assigned a disproportionately large number of all of FLES's control group members. Given this office's string of bad luck in the selection of control group members and its resulting concern that its reputation in the community would be damaged, MPR addressed the situation by randomly assigning all cases from this individual office at the same rate and separate from the rest of FLES's submissions. By so doing, MPR eliminated the possibility that this office would have multiple controls in any batch of approximately 14 or less.

For example, since the overall control group selection rate was approximately seven percent, a batch of about 14 or fewer applicants resulted in at most one control assignment; a batch of 15 to 28, no more than two control assignments, and so forth.[7] When cases were randomly assigned individually or in small groups, it was possible that substantially more than seven percent of eligible applicants from a given OA agency would be assigned to the control group during some weeks.

Four-fifths of all OA coordinators and approvers submitted applications to MPR via fax. Faxed batches were relatively small and included an average of seven applications. Most of the remaining coordinators and approvers submitted applications by two-day Federal Express. These submissions tended to be larger, containing an average of 20 applications. In addition, several large OA agencies in Region 5 sent all materials electronically through the regional office. A copy of the submission cover sheet is displayed in Appendix C.

b. Performing Random Assignment

MPR randomly assigned applicants to the program or control group only after the following sample frame and processing criteria were satisfied:

- The applicant was in the sample frame.
- The applicant had not previously been sent to MPR for random assignment.
- Critical applicant information was complete.
- The applicant signed the Agreement to Participate form for participation in the study, and, if the applicant was under 18 years of age, the applicant's parent or guardian also signed the form.

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[7] Because sampling rates differed for various population subgroups, these approximate figures varied, based on the mix of applicants in the batch.

Over the course of the sample intake processing period, MPR staff randomly assigned an average of 1,225 applications in the sample frame each week, or 245 per day. The number of applications randomly assigned each week varied, based on variations in the number of applications to Job Corps. For instance, during fall 1995, when the number of Job Corps applications increased, MPR randomly assigned nearly 1,700 applications in the sample frame each week.

Before random assignment was performed, a series of steps was performed to ensure that the sample frame and processing criteria were satisfied: (1) quality checking, (2) data entry for all applications, (3) callbacks to obtain critical data items, and (4) automated consistency and validity checking and problem resolution. These four steps are documented in detail in Appendix E.

After performing these four steps, MPR randomly assigned each eligible applicant in the sample frame to the program group (either research or nonresearch) or the control group, using a computer-generated random number. Applicants from each OA agency were divided into four groups: (1) females designated for a residential slot in areas with a low concentration of nonresidential female applicants, (2) females designated for a nonresidential slot in areas with a low concentration of nonresidential female applicants, (3) all males designated for a residential slot and females designated for a residential slot in areas with a high concentration of nonresidential female applicants, and (4) all males designated for a nonresidential slot and females designated for a nonresidential slot in areas with a high concentration of nonresidential female applicants. Within each group all applicants from a given OA agency were sampled into the program and control groups at the rates shown in Table II.1 (and subsequently modified as described in Chapter IV).

c. Communicating Random Assignment Results

After random assignment was completed, MPR returned results to OA coordinators and approvers via fax. Initial plans called for returning the results to study coordinators within 48 hours of receiving completed materials. To allow for special situations requiring faster turnaround, study coordinators could request "expedited processing," in which case results were promised within 24 hours. MPR staff were consistently able to return the results within the specified 24- or 48-hour processing periods. OA agencies requested expedited processing for three-quarters of all applications, a considerably higher proportion than the 10 to 20 percent expected at the outset of the study. Coordinators and approvers requested expedited processing for a variety of reasons: (1) the weekly center assignment and departure dates were imminent; (2) applicants were homeless; and (3) applicants were nearing age 25, when they would become ineligible for Job Corps. Applications were processed and the results returned within 30 minutes for some especially urgent requests.

The computer-generated random assignment notification report contained identifying information for each applicant (full name and social security number), along with the status of (1) "control group," (2) "program group," or (3) "unassigned." (An example of a random assignment notification report is found in Appendix C.) A "program group" status was designated on the report for youth assigned to the program research group, youth assigned to the program nonresearch group, and youth excluded from random assignment either because they were either previously assigned or because they did not meet the sample frame criteria. In this manner, OA staff were kept blind to a youth's status as a program research group member. This ensured that program research group members were not treated in systematically different ways from other program group youth. Unassigned cases were those for which MPR needed additional information to conduct random assignment. In addition to labeling an applicant as "unassigned" on the notification report, the report also provided an explanation of why the case was unassigned (for example, "missing parental signature").

MPR also communicated control group results to regional office study coordinators and individual control group members. We sent monthly lists of control group members to the regional office study coordinators and a copy of the official control group notification letter to each control group member. These control group letters typically were mailed within two days of random assignment.

d. Final Processing Steps

After performing random assignment and communicating the results, MPR staff performed several final processing steps. First, staff data-entered additional items from the ETA-652 and the ETA-652 Supplement for all research sample members. Second, staff immediately forwarded information on research sample members to data collection staff in MPR's telephone survey center. Telephone interviewers usually began contacting sample members for baseline interviews on the day random assignment was completed. Finally, staff checked that original, hard-copy study forms were received for applications originally sent by fax or electronic mail. These original forms, particularly the Agreement to Participate form, were needed for random assignment documentation.

4. MPR's Study Hot Line

To respond to a variety of questions and concerns relating to the Job Corps study, MPR established a toll-free telephone hot line. The hot line number was advertised on the cover of the study brochure and was distributed to all OA and center staff. A variety of people called the hot line, including OA staff, applicants, applicants' families, and other interested parties such as high school principals and counselors, social workers, clergy, probation officers, and congressional staff representatives.

During the random assignment period, MPR staff responded to approximately 5,500 hot line calls, or 17 calls a day.[8] The planning, start-up, and early stages of implementation were peak times for hot line calls. During these periods, MPR staff responded to as many as 50 calls a day.

Callers used the hot line for many reasons. We categorize the two primary types of hot line calls as follows:

1. OA and approving staff calling with procedural questions about random assignment, inquiries about the random assignment status of an applicant, requests for expedited random assignment processing, or clarifications about study procedures.

2. Control group members, their parents, and advocates calling to discuss one or more of the following issues: (1) confirmation of the control group status, (2) the possibility of changing the status to allow the youth to enroll in the program, (3) an explanation of and justification for the study design and how youths got selected to the control group, and (4) expression of dissatisfaction with both the study and the control group selection process.

The hot line will be maintained throughout the entire Job Corps study. During the ongoing, post-sample intake period, MPR staff respond to about six calls a day.

C. CHANGES DURING THE INTAKE PERIOD THAT AFFECTED PROCESSING

During the 16-month sample intake period, MPR adapted the random assignment process to a variety of personnel and procedural changes in the Job Corps outreach and admissions system. As a result of these changes, MPR staff provided study training and technical assistance to OA and center-based staff throughout the intake period.

1. New OA and Approving Agencies

During the intake period, approximately 10 new OA agencies nationwide were awarded contracts and began submitting materials to MPR. In general, these new OA contractors replaced existing contractors. In addition, about five centers also began submitting approved application materials to MPR midway through the intake period. The regional offices were primarily responsible for providing training on study requirements and procedures to these OA agencies and centers. MPR assisted, as necessary, by providing telephone training sessions.

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[8] Additional calls were taken on regular staff telephone lines.

2. New OA and Approving Personnel

Personnel changes within given OA agencies, including both OA coordinators and individual OA counselors, occurred frequently. More than one-fourth of OA agencies experienced a change in the OA coordinator during the intake period, and most OA agencies experienced at least some turnover in individual OA counselors. Most of the new OA coordinators were familiar with the study, but the new OA counselors required training on study procedures. MPR staff assisted as necessary.

3. Changes in the Job Corps Approval Process

Midway through the study, responsibility for determining eligibility for the medical and behavioral review cases in Region 4 shifted from the regional office to individual centers. Initially, this change created difficulties for agencies in following study procedures. For instance, approving centers began enrolling the special review applicants after they were approved but before they had been randomly assigned. After MPR staff became aware of this change, we worked with the Region 4 Office to adapt study submission procedures and contacted nearly all the Region 4 center-based approvers to discuss study requirements. In the end, the regional office decided that OA agencies, rather than the center-based approvers, would continue to submit materials to MPR.

IV. MONITORING SAMPLE BUILDUP AND ENDING RANDOM ASSIGNMENT

During the sample intake period, MPR staff periodically monitored sample buildup to assess whether the research sample was near target levels and whether initial sample design parameters needed to be adjusted. This monitoring process also guided our plans for ending random assignment because we wanted to end sample intake only after the research sample size was large enough to ensure that the impact of Job Corps can be estimated with the targeted level of precision.

The purpose of this chapter is to discuss our process for monitoring sample buildup and our design for ending random assignment. In addition, we present final sample intake figures.

A. MONITORING SAMPLE BUILDUP

The initial sampling rates for the National Job Corps Study were set prior to the start of sample intake so that target research sample sizes could be attained during a one-year period. These rates were based on projections of key Jobs Corps program parameters estimated using historical program data, and in particular on the likely flow of eligible program applicants. Accordingly, we anticipated that the accuracy of our initial design parameters would need to be examined during the sample intake period, after we obtained sufficient data on the flow of eligible Jobs Corps applicants.

In May 1995, project staff assessed the accuracy of the initial design parameters using data from the first five months of sample intake. This two-part section discusses the results from this analysis. First, we discuss the degree to which our initial projections on key design parameters changed and the expected effect these changes would have on precision levels of the impact estimates under the original sample design. Second, we discuss how we modified the study design in response to these changes.

1. Changes in Key Planning Parameters

The main finding of our analysis was that, between the start of sample intake and mid-1995, the flow of eligible Job Corps applicants sent for random assignment was well below what we had anticipated on the basis of historical data. Analysis conducted subsequently (described in Chapter VI) confirmed that the number of new enrollees during the first eight months of 1995 was about 5,800 less than the average number of new enrollees in the same months during the preceding two years.

We also found that our initial projections on several other key factors affecting the precision of the impact estimates needed to be modified. These key factors included (1) the proportion of eligible applicants who enroll in centers, (2) the response rate to the baseline interview, and (3) the proportion of youths designated for nonresidential slots. The modifications to these key factors, which often had counterbalancing effects on precision levels, were as follows:

- ***The proportion of program group members who did not enroll in centers--the no-show rate--was higher than expected.*** A higher no-show rate reduces the precision of the impact estimates because our precision objectives are based on a target sample of program *enrollees* and not of eligible applicants.

- ***The telephone response rates to the baseline interview were higher than the anticipated rates.*** Because of the higher telephone completion rate, the telephone portion of the baseline sample--which is a simple random sample (not clustered)--was much higher than expected, and the in-person portion of the sample--which is a clustered sample resulting from the random selection of areas slated for in-person interviewing--was much smaller. This less clustered baseline sample translates into a less clustered follow-up sample, which substantially increases the power of our design to estimate program impacts for a given sample size.[1] The higher response rate by telephone also led to a higher overall response rate, which translates into a larger follow-up sample and better precision.

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[1] The follow-up interview sample will be less clustered because follow-up interviews will be conducted with all sample members who live in the areas randomly selected for in-person interviews (regardless of whether they complete baseline interviews), but they will take place in the nonselected areas only with youths who complete a baseline interview by telephone.

- ***A smaller percentage of youth than anticipated were designated for nonresidential slots on the ETA-652 Supplement.*** Thus, the power of the design for estimating the impacts of the nonresidential component was smaller than anticipated.

The net effect of the revised projections was to *reduce* the precision of the impact estimates on key outcome measures for the full sample and for key subgroups, especially for youth designated for nonresidential slots.[2] The increase in the precision of estimates due to an increase in the telephone response rates was outweighed by the decrease in precision caused by a smaller flow of eligible applicants than anticipated and an increase in the estimate of the no-show rate.

2. Adjustments to the Sample Design

Because the study design was less powerful under the new projections than under the original projections for detecting key program impacts, we considered various strategies for adjusting key design parameters so that the modified design would achieve precision on key outcome measures comparable to that achieved under the original projections, but without significantly altering project costs. In particular, we considered options for (1) extending the sample intake period, and (2) increasing control (and program research group) sampling rates for the rest of the sample intake period.

On the basis of our analysis, we recommended to DOL that sample intake be extended from fall 1995 until early 1996 to obtain the required research sample of 14,300 youths (5,550 control group and 8,750 program group members).[3] The strategy of lengthening the sample intake period was

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[2] The higher than expected telephone response rate does not increase the power of the design for estimating impacts of the nonresidential component, because all nonresidential controls were eligible for in-person interviews under the original design. (The higher overall response rate for this group helps somewhat.)

[3] Our revised target sample sizes were smaller than our original target of 16,700 youths (6,500 control group and 10,200 program research group members) because of the precision gains caused

(continued...)

chosen over a strategy of increasing the sampling rates to the control and program research groups, because the sampling rates would have had to be significantly increased to achieve target sample sizes. This would have imposed unacceptable additional burden on Job Corps operations and on program applicants. We recommended, however, that the control group sampling rate for applicants who lived in areas from which many nonresidential students come be increased from eight percent to nine percent to further improve the precision of the impacts of the nonresidential component.[4] In early summer 1995, representatives of the national office, the Department of Labor (DOL), and Mathematica Policy Research, Inc. (MPR) agreed to these design changes.[5]

During fall 1995, the number of new students recruited increased sharply, as shown by trends in the number per month enrolling (see Figure VI.1). During the period from September 1995 through February 1996, the number of new students enrolling was approximately 3,400 above seasonal levels. This unanticipated surge in recruitment mitigated the precision losses anticipated on the basis of the analysis conducted in mid-1995.

B. ENDING SAMPLE INTAKE

Sample intake ended on February 29, 1996. However, only those eligible youths who applied to Job Corps before December 17, 1995, were included in the sample universe and subject to random

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[3](...continued)
by the large increase in the projected telephone response rates to the baseline interview (from 65 to 90 percent).

[4] We recommended also that the sampling rates to the program research group be increased from 10.7 to 11.1 percent for residential designees, and from 15.4 to 17.0 percent for nonresidential designees. This was done to maintain the ratio of 2 program group members to 1 control group member for residential designees and 1.5 program group members to 1 control group member for nonresidential designees.

[5] The sampling rate increases started on August 16, 1995.

assignment.[6] The sample intake end date was set later than the application cutoff date to ensure that the research sample is representative of youths who *applied* to Job Corps during a particular period and who were determined eligible for the program. There was often a lag during the sample intake period between the time that a youth applied to the program and the time that the youth was determined eligible for the program (at which time information on the youth was sent to MPR for random assignment). The February 29, 1996, end date was selected because information on most of the youths was sent for random assignment within two and one half months after they applied to the program. As discussed in Chapter V, less than .5 percent of youths in the sample universe were not randomized as a result of the truncation of random assignment.

We selected the December 16, 1995, program application cutoff date for two reasons. First, our target research sample size of 14,300 youths was met by that time because of the surge in recruitment during fall 1995. The final research sample of 15,400 youths was larger than the target sample size, however, because sample intake for youths in the sample universe continued until the end of February 1996. We would have preferred to set the program application cutoff date before our target sample size was met so that the target would have been met when sample intake ended. It was not possible to do so, however, because we did not anticipate the sudden surge in the recruitment of eligible applicants during fall 1995. Second, the application cutoff date implies that the sample universe for the evaluation can be defined simply as eligible program applicants who applied to the program during a 13-month period between November 17, 1994, and December 16, 1995.

In ending random assignment, we wanted to avoid, to the extent possible, a situation where OA counselors might advise applicants to wait a month or two and apply after random assignment ended.

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[6] Youths who were sent for random assignment but who had applied to Job Corps after December 16, 1995, were not subject to random assignment. Job Corps staff were informed that these youths were assigned to the program group, which was the procedure used for all youths sent for random assignment who were not in the sample universe.

If counselors did this on a wide scale, the practice would make applicants during the final months of sample intake unrepresentative of usual applicants. For two reasons, we believe this practice is unlikely to have been widespread. First, OA counselors would have had to tell youths interested in applying to the program before December 17, 1995, to delay their application for three or four months until spring 1996. Because OA counselors in most regions were under pressure from the national office to increase the recruitment of eligible youths in response to low enrollments during most of 1995, it is unlikely that this would have occurred on a large scale. Instead, any gaming behavior that occurred probably would have affected program applicants in early 1996, but these youths were not in our sample universe. Second, the evaluation team kept vague the date random assignment would end and the exact delineation of the applicants to be in the sample universe until the end of random assignment was imminent.

We considered a design where OA staff would continue to send information to MPR after February 29, 1996, on only those youths in the sample universe, but we rejected this design option for five main reasons. First, we anticipated (and data have confirmed) that the number of youths in our sample universe who would not be randomized as a result of the truncation of random assignment would be very small, and thus the loss in representativeness of the sample is also very small. Second, extending random assignment further would impose an additional burden on Job Corps staff and would break our promise to the staff that random assignment would last for "about one year." Third, extending random assignment would increase data collection costs because the follow-up data collection period would also be extended. Fourth, the extension of the follow-up data collection period would delay the reporting of study findings. Finally, we were concerned that the design would be difficult to implement successfully, because OA staff would have incentives to find ways to avoid sending youths in the sample universe for random assignment.[7]

C. SAMPLE INTAKE FIGURES

During the sample intake period, MPR processed information on 113,803 cases in total (see Figure IV.1, which graphically depicts the number and types of cases that MPR processed and randomly assigned). Information on 80,883 eligible applicants in the sample universe was processed. The sample consists of 5,977 controls (7.4 percent of those randomized), 9,409 program research group (11.6 percent of those randomized), and 65,497 program nonresearch group members.[8] Information on 32,920 applicants was processed, but the applicants were not randomly assigned, because they were not in the universe covered by the study or because the applications of these individuals did not meet processing criteria. These cases excluded from random assignment can be categorized as follows:

- ***Cases not in the sample universe because they applied to Job Corps outside the period November 17, 1994, to December 16, 1995.*** MPR processed 2,748 cases who applied to Job Corps before November 17, 1994, and 16,839 cases who applied to Job Corps after December 16, 1995, and whose complete paperwork was received before March 1, 1996.

- ***Cases for whom MPR staff had not received complete random assignment materials by February 29, 1996.*** MPR processed 5,743 cases in March 1996 because Job Corps staff were told that random assignment would end on March 15, 1996. Of the 5,743 cases processed in March, 358 were in the sample universe because they applied to Job Corps before December 16, 1995.

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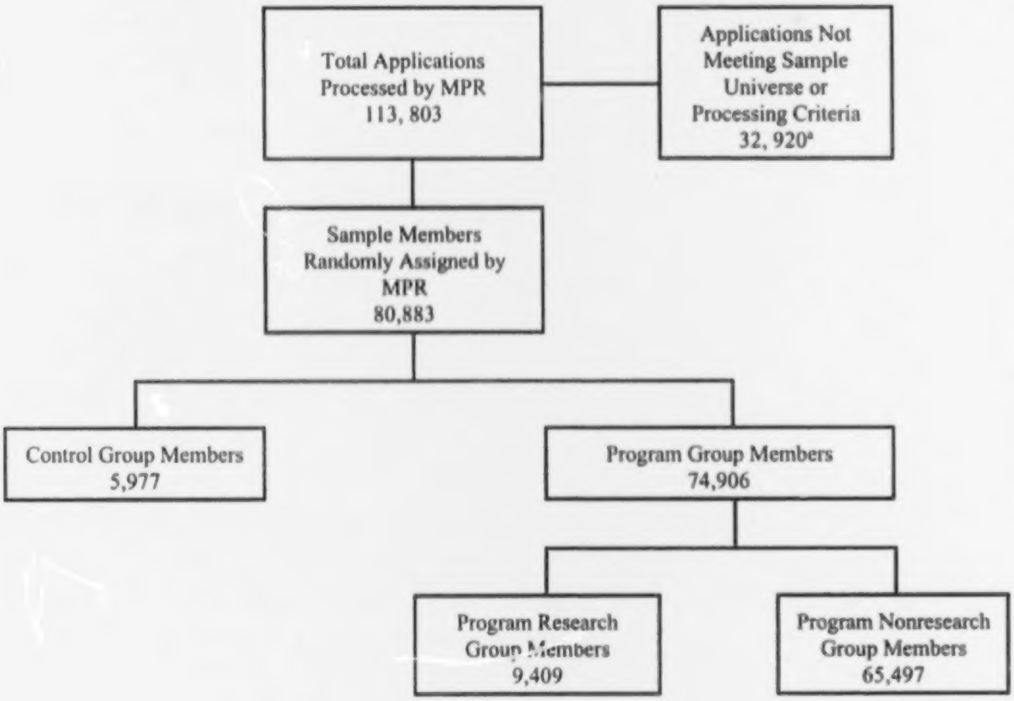
[7] For example, OA staff could delay sending information on the youths for several months or could change the application dates of youths on the program intake (ETA-652) forms (or leave them blank).

[8] MPR mistakenly randomized 15 individuals twice. Four were randomized once into the program research group and once into the program nonresearch group; these individuals are counted as program research group members. Eleven were randomized into the program nonresearch group both times; these individuals are counted only once, as program nonresearch group members.

FIGURE IV.1

RANDOM ASSIGNMENT PROCESSING AND SAMPLE INTAKE RESULTS: TOTAL NUMBER AND TYPES OF APPLICATIONS PROCESSED BY MPR


Total Applications Processed by MPR 113, 803
Applications Not Meeting Sample Universe or Processing Criteria 32, 920[a]
Sample Members Randomly Assigned by MPR 80,883
Control Group Members 5,977
Program Group Members 74,906
Program Research Group Members 9,409
Program Nonresearch Group Members 65,497

[a] Most of these include (1) cases not in the sample universe because they did not apply to Job Corps between November 17, 1994, and December 16, 1995, 59 percent; (2) cases whose completed materials were not received by MPR before February 29, 1996, 17 percent; (3) cases not in the sample frame because they were readmits, 13 percent; (4) cases not in the sample frame because they applied to one of the seven exempted programs, less than 0.1 percent; and (5) cases previously assigned as either program or control group members, 10 percent. For more details, see text of Chapter IV.

- ***Cases not in the sample universe because they were readmits.*** During the sample intake period, MPR processed 4,262 cases who were program readmits.

- ***Cases not in the sample universe because they were in special programs.*** MPR processed 26 cases who applied to one of seven special programs excluded from the study.[9]

- ***Cases sent for random assignment more than once.*** MPR processed 177 cases who had been previously randomly assigned as control group members and 3,126 cases who had been previously assigned as program group members. OA staff mistakenly sent duplicate copies of random assignment materials in the same batch or forgot which youths had already been sent for random assignment. We do not believe that OA counselors systematically re-sent control group members for random assignment with the hope that they would be reassigned to the program group.[10]

Table IV.1 displays the number of eligible Job Corps applicants in the sample universe during each month of the sample intake period. As discussed, the flow of eligible Job Corps applicants was lower than expected between the start of sample intake and mid-1995. However, recruitment increased significantly starting in fall 1995 as a result of a campaign by the Job Corps national office to increase Job Corps enrollment. The number of randomly assigned youths decreased in 1996 because only those who applied to Job Corps between November 17, 1994, and December 16, 1995, were in the sample frame. About three-quarters of the research sample was randomized after most of the new Job Corps policies went into effect in March 1995.

The research sample was selected proportionally across the Job Corps regions (see Table IV.2). Nearly 40 percent of sample members came from the South (Regions 4 and 6), and about 14 percent came from Regions 3 and 7/8 each. Regions 5 and 9 each provided about 10 percent of all sample members, and Regions 1, 2, and 10 provided the fewest sample members. The distribution of sample members across regions is very similar to the distribution of program enrollees across regions

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[9] These 26 cases do not represent the total number of youths who applied to the special programs, because Job Corps staff did not usually send information to MPR on these applicants.

[10] Chapter V contains a more detailed discussion of these cases.

TABLE IV.1

NUMBER OF RANDOMLY ASSIGNED YOUTHS IN SAMPLE FRAME, BY RESEARCH STATUS AND MONTH AND YEAR OF RANDOM ASSIGNMENT

	Research Status			Total	
Month and Year	Control	Program Research[a]	Program Nonresearch[a]	Total Number Randomly Assigned	Cumulative Percent of All Cases
November 1994	23	27	215	265	0.3
December 1994	194	290	2,207	2,691	3.7
January 1995	357	603	4,357	5,317	10.2
February 1995	399	631	4,524	5,554	17.1
March 1995	459	709	5,086	6,254	24.8
April 1995	364	558	4,124	5,046	31.1
May 1995	421	650	4,763	5,834	38.3
June 1995	463	764	5,432	6,659	46.5
July 1995	427	699	4,885	6,011	53.9
August 1995[b]	641	937	6,375	7,953	63.8
September 1995	495	829	5,682	7,006	72.4
October 1995	600	942	6,305	7,847	82.1
November 1995	501	807	5,276	6,584	90.3
December 1995	394	641	4,079	5,114	96.6
January 1996	190	247	1,620	2,057	99.1
February 1996[c]	49	75	567	691	100.0
Total	**5,977**	**9,409**	**65,497**	**80,883**	**100**

SOURCE: Random Assignment Database for the National Job Corps Study.

[a] MPR mistakenly randomized 15 individuals twice. Four were randomized once into the program research group and once into the program nonresearch group; these individuals are counted once in the table as program research group members. Eleven were randomized into the program nonresearch group both times; these individuals are counted once in the table, as program nonresearch group members.

[b] In August 1995, the sampling rate to the control group was increased from eight to nine percent for those living in areas from which a large fraction of female nonresidential students come. The sampling rates to the program research group were also increased slightly at that time.

[c] Includes three cases that were randomized on March 1, 1996, because their information was sent to MPR late on February 29 after MPR staff had gone home.

(shown in the final column in Table IV.2). The difference in the two distributions is caused primarily by differences in no-show rates across regions.

The research sample sizes for key subgroups defined by youth and program characteristics are generally as expected. For example, about 40 percent of those in the sample universe were female, and 13.8 percent were designated for nonresidential center slots on the supplemental study form developed for the study. Therefore, the design will be effective for estimating the effects of Job Corps on key outcome measures for these subgroups. The proportion of youths designated for CCC slots, however, is somewhat lower than expected (about 12 percent rather than 17 percent). Precision levels for estimates of the impact of CCC centers, however, are still near our benchmark levels. The characteristics of sample members using ETA-652, ETA-652 Supplement, SPAMIS, and baseline interview data are discussed in detail in a separate report.

TABLE IV.2

NUMBER OF RANDOMLY ASSIGNED YOUTHS IN SAMPLE FRAME, BY RESEARCH STATUS AND REGION

	Research Status			Total		
Region	Control	Program Research[a]	Program Nonresearch[a]	Total Number Randomized	Percentage of All Randomized Cases	Percentage of All Program Enrollees in Sample Frame
Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont)	260	408	2,891	3,559	4.4	4.8
Region 2 (New Jersey and New York)	457	649	4,764	5,870	7.3	7.9
Region 3 (Delaware, Maryland, Pennsylvania, Virginia, Washington, DC, and West Virginia)	808	1,260	8,599	10,667	13.2	12.7
Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee)	1,347	2,162	14,998	18,507	22.9	22.2
Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin)	635	976	6,759	8,370	10.3	9.6
Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas)	876	1,442	9,594	11,912	14.7	15.2
Region 7/8 (Colorado, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming)	729	1,196	8,475	10,400	12.9	12.3
Region 9 (Arizona, California, and Nevada)	564	882	6,177	7,623	9.4	9.7
Region 10 (Idaho, Oregon, and Washington)	301	434	3,240	3,975	4.9	5.6
Total	**5,977**	**9,409**	**65,497**	**80,883**	**100.0**	**100.0**

SOURCE: Random Assignment Database for the National Job Corps Study and SPAMIS.

[a] MPR mistakenly randomized 15 individuals twice. Four of the individuals were randomized once into the program research group and once into the program nonresearch group; these individuals are counted as program research group members. Eleven of the individuals were randomized into the program nonresearch group both times; these individuals are counted once, as program nonresearch group members.

V. MONITORING ADHERENCE TO RANDOM ASSIGNMENT PROCEDURES

Our ability to draw valid inferences from a random assignment study about the effects of Job Corps on its students' postprogram outcomes depends on the integrity of the procedures used to designate applicants' research status and on adherence to the rule that only people designated for the program group are permitted to enroll in Job Corps. To protect the integrity of the Job Corps study sample intake procedures and ensure the credibility of its findings, we monitored sample implementation to achieve four goals:

1. ***Ensure that all eligible applicants in the sample frame are subject to random selection.*** So that the study's findings would apply to all eligible applicants nationwide, it was important to ensure that youths did not enter Job Corps without being subject to random selection. If a significant proportion of applicants in the study population enter the program without being subject to random selection, the study's findings apply only to the restricted group, not to all eligible applicants nationwide.

2. ***Allow each eligible applicant only one chance for selection to the program or control group.*** To make sure everyone in the study population has the same known chance of selection to the program or control group, it is important that each person is subject to selection only one time. Allowing just one chance for selection is also important to ensure that neither outreach and admissions (OA) counselors nor applicants could change an applicant's odds of being selected for the control group. Thus, if someone reapplied after being selected as a control (or program) group member or if an OA counselor resubmitted an application in error, we needed to ensure that each youth retained his or her original research status designation.

3. ***Exclude from random selection people not in the intended study population.*** The study's intent is to draw inferences about the effects of Job Corps on eligible, first-time applicants whose application occurred between November 17, 1994 and December 16, 1995. Including a significant number of individuals who do not satisfy these criteria clouds the interpretation of the study findings.

4. ***Do not permit control group members to enroll in Job Corps.*** If a significant number of people assigned to the control group receive Job Corps program services, these "crossovers" create an obvious source of potential bias in the study's measures of net impacts. To the extent that Job Corps truly improves employability and earning capacity, exposing control group members to the program will cause the net effects of

the program to be understated. (Removing "crossovers" from the analysis sample does *not* resolve the problem.)

This chapter describes the sample-monitoring activities undertaken and provides an analysis of the monitoring results. The evidence shows that the Job Corps system implemented study procedures very well, ensuring that the study will provide a sound answer to its basic questions. In brief, our findings on each monitoring element are as follows:

- More than 99 percent of the people in the intended study population were actually subject to random selection.
- Just 19 out of over 80,000 applicants were subject to random selection more than once.
- Very few people ineligible for the study were subject to random selection.
- Just 1.3 percent of control group members have enrolled in Job Corps.

The next sections describe the monitoring activities that we conducted and present the analysis of the extent to which the goals above were achieved.

A. MONITORING ACTIVITIES DURING SAMPLE INTAKE

This section discusses two types of monitoring activities that were incorporated into the ongoing sampling activities: (1) internal checks on each case submitted for random selection to ensure that the case met criteria for inclusion in the sample and that it had not been previously submitted for random selection, and (2) checks against external data sources to identify people enrolling in Job Corps who had not been sent for random selection or had been assigned to the control group. The section concludes with a discussion of how cases sent to Job Corps in error were handled.

1. Internal Checks

When OA staff submitted applicants' information, MPR clerks performed data quality checks, made callbacks on critical missing items, entered key data, and executed manual and computer checks to ensure the case satisfied all the criteria for inclusion in the study.

When all key data items were received, MPR conducted the following sample frame checks to determine whether new applicants should be subject to random selection:

- Verified that the applicant applied to Job Corps between November 17, 1994, and December 16, 1995
- Verified that the OA agency submitting the application was within the contiguous 48 states or the District of Columbia
- Verified that the applicant was not identified as a readmit on the application form

These sample frame checks were performed using data provided on the ETA-652 Forms: date of application to Job Corps, state of residence, and readmit status.

In addition, MPR verified that each applicant sent for random assignment had not been previously sent for random assignment. This check was necessary to ensure that each eligible applicant had only one chance for selection to the program or control group. It was performed by matching information on new applicants to a database containing information on all youths who had been previously sent for random assignment. A match occurred if (1) the social security numbers matched, (2) the name and birthdate indexes (comprising the last name, the first two letters of the first name, and the date of birth) matched, or (3) the telephone numbers matched. When matches occurred, MPR clerks hand-checked the information to verify that the applications actually were duplicates. If hand-checking indicated that an application was a duplicate, the application was not randomly assigned again. Instead, it was assigned its original research status code.

2. External Checks

To identify enrollees in the study population who were not sent for random assignment during the sample intake period and control group members who enrolled in Job Corps, MPR matched Job Corps Student Pay, Allotment, and Management Information System (SPAMIS) enrollment data with the random assignment database on a weekly basis. SPAMIS is used to maintain records on student performance and to track the accrual of students' payments and readjustment allowances. It includes extensive data on Job Corps enrollees (including socioeconomic and demographic information), considerable information on in-program experiences, detailed financial information related to participant pay, and selected information on placement outcomes at termination. SPAMIS maintains historical information on everyone who ever enrolled in Job Corps.

For each applicant enrolling at a center, Job Corps center clerical staff currently enter information from the Job Corps ETA-652 form into SPAMIS. Because the system is used to accrue students' pay and readjustment allowance, it is thought to be complete: students do not enroll in Job Corps without having information entered into SPAMIS. The application data are entered within a day or two of the youth's enrollment, and the record is updated and supplemented during the youth's tenure at Job Corps. Each week since November 1994, the Job Corps SPAMIS contractor has mailed a diskette to MPR containing data on all new enrollees for the previous week.[1] Typically, the diskette has been received 9 or 10 days after the end of the enrollment week included on the file.

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[1] The following variables for each new enrollee are included in the weekly SPAMIS enrollment data: name, social security number, address and related locating variables, birth date, sex, type of enrollment (for example, new, readmit, reinstatement, update, or transfer), residential status, Job Corps interview date, enrollment date, arrival date, enrollment date into Job Corps training components, OA office identification code, center where enrolled, termination date, termination type, transfer to center, termination address and related variables, termination telephone, agency or office responsible for placement and/or support services, and other locating information.

To monitor the random assignment process, we matched the individuals on the random assignment database with the individuals on the weekly SPAMIS files of new enrollees. The matching algorithm was designed to maximize the number of correct matches while keeping the number of false positive matches manageable. The following two steps were performed in sequence to match the two databases:

1. Using the date of interview field in SPAMIS, identify new enrollees in the sample frame who applied to Job Corps during the period from November 17, 1994, to December 16, 1995.

2. Match SPAMIS data for these new enrollees to data on all applicants ever sent for random assignment, using the following criteria: (1) social security number; (2) first four letters of the last name, first two letters of the first name, and date of birth; and (3) zip code and first two letters of the first name. A match occurred if one or more of these three criteria were met.[2]

Matched cases were enrollees who had already been randomly assigned by MPR (including those who had been assigned to the control group). Unmatched cases on SPAMIS were those enrollees who had incorrectly slipped through the process and had not been randomly assigned.

3. Handling Cases Sent to Job Corps Centers in Error

The enrollment of eligible youths in Job Corps prior to random assignment or after being assigned to the control group indicated a breakdown in study procedures at both the OA coordinator and the center levels. Study procedures required that OA coordinators send to MPR random assignment materials for all eligible applicants before their enrollment in Job Corps and that they not send control group members to a center. Likewise, centers were not supposed to enroll youths who had not been randomly assigned or who had already been selected for the control group.

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[2] The social security number was the best matching variable, producing more than 95 percent of the matched cases. The birthdate and name index was used to match most of the remaining cases (for example, those youths who did not have a social security number). While matching with the birthdate and name index was useful, approximately one-quarter of the case matches were identified through manual checking as false positives. Finally, the zip code and name index was used to match a small number of cases, although it also produced a relatively large number of false positives.

When a Job Corps enrollee in the study population who had not been sent for random selection was identified, MPR staff promptly took the following five steps:

1. Contacted the OA coordinator to verify the name and social security number of the Job Corps enrollee who did not match to the random assignment database and to verify the enrollee's status as a new applicant (rather than a readmit) with a date of interview falling within the sample frame. MPR staff discussed the case and relevant study procedures with the OA coordinator to determine how the error occurred and to help prevent recurrences.
2. Requested that the OA coordinator or approver promptly complete and fax the materials necessary for random assignment.
3. Expedited the random assignment processing and promptly notified the OA coordinator of the applicant's research status.
4. For cases assigned to the control group, called the OA coordinator to discuss the implications of the assignment to the control group. MPR staff emphasized that these control group enrollees would remain controls for the analysis.
5. Prepared a memo to Job Corps documenting the specifics of the case. As discussed below, MPR requested early in the study that these control group youths be sent home or terminated from centers.

The process for following up on control group members sent to Job Corps centers after being assigned to the control group was similar.

Procedures for dealing with study control group members who enroll at centers have been modified over time. During the first two months of sample intake, MPR did not request the termination of control group members from Job Corps. This unannounced two-month grace period was intended to give OA coordinators and centers time to adjust to the random assignment procedures. During this initial period, we did not request the termination of any of the six controls who either applied for Job Corps prior to January 1, 1995, or enrolled in centers prior to February 1, 1995.

Beginning February 1, 1995, MPR routinely recommended that control group enrollees be terminated, in accordance with procedures agreed to with Job Corps. During this period, we requested that regional office study coordinators instruct appropriate center directors to terminate 14 control group enrollees.[3] Of these, eight were sent home, most within two weeks of the enrollment date. The other six remained at the centers.

In July 1995, the national office of Job Corps instituted a policy whereby control group members enrolled at centers would no longer be terminated. Job Corps felt that control group members reach centers due to staff errors and that students should not be penalized for such errors. Instead of sending control group members home during this period, the national office allowed control group members to remain at centers, but held OA and center staff accountable for random assignment errors. Given the very low crossover rates, we expect that these crossovers will not materially affect study results.

B. MONITORING ACTIVITIES AFTER SAMPLE INTAKE ENDED

Sample intake ended on February 29, 1996; however, MPR has continued to receive weekly SPAMIS extracts on all new center enrollees. MPR has identified control group members who have enrolled in centers and youths in the sample frame who enrolled but were not subject to random assignment because random assignment ended. The latter group includes enrollees who applied to Job Corps prior to December 17, 1995, but who were not determined eligible for the program by the end of February 1996.

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[3] During this same period, we did not request termination of several control group members; these were exceptional cases where youths had rearranged their lives to attend Job Corps after being misinformed by OA counselors.

Several procedures were taken to ensure that control group members do not enroll in centers after random assignment ended. Shortly before sampling ended, the national office of Job Corps notified all OA, center, and regional staff that the sample intake period was ending and instructed them to help ensure control group members did not enroll before a date three years after random selection.

MPR provided lists of control group members to all OA counselors, center admissions office staff, and regional office staff showing the date each youth may enroll in Job Corps if he or she is still eligible.[4] OA staff were asked to check the lists to assess whether each new applicant is a control group member and not to process applications for control group members who reapply to the program during their three-year waiting periods. Center staff are supposed to check the lists to assess whether each new center assignee is a control group member and to not enroll control group members in centers. Regional office staff were asked to make all new OA contractors aware of these ongoing study requirements.

In addition, identifying information on control group members was loaded into SPAMIS, and the SPAMIS entry program was updated to flag control group members when Job Corps center staff enter their information on new enrollees into SPAMIS. Using the social security number, the SPAMIS data entry program matches information entered on each new enrollee against the list of control group members. If a match is found, the data entry program does not allow a record to be created for the control group member, and the youth cannot enter Job Corps.

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[4] Two lists were provided: one in alphabetical name order, the other in social security number order. The lists were also available on diskette. Control group members who enrolled in centers were excluded from the lists.

C. ANALYSIS OF MONITORING RESULTS

This section presents the results of our analyses of the extent to which (1) all eligible applicants in the intended study population were subject to random assignment, (2) eligible applicants were subject to random assignment only once, (3) youths not in the study population were subject to random selection, and (4) control group members enrolled in Job Corps.

1. Extent to Which Intended Sample Frame Members Were Subject to Random Assignment

As mentioned earlier, MPR has received weekly extracts containing information on all new center enrollees since the start of sample intake and has identified enrollees in the sample frame who were not sent for random assignment prior to their enrollment dates. During the sample intake period, OA staff handled most enrollees (more than 99.4 percent) correctly. Just 265 out of 50,896 (.52 percent) enrollees in our sample frame enrolled in Job Corps before being subject to random selection, and the percentage of mishandled cases was very small in all regions (see Table V.1). All these 265 mishandled enrollees were subsequently randomly assigned.[5]

In the end, four groups of eligible applicants in our sample frame were not subject to random selection:

1. 230 youths who enrolled in centers after the sample intake period ended
2. An estimated 200 youths who did not enroll in centers[6]

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[5] Twenty-one of these youths were selected to the control group and, thus, are control group crossovers.

[6] About 28 percent of program group members did not enroll in centers. While nonrandomized no-shows cannot be identified, their number can be estimated if we assume that the proportion of no-shows in our frame who were not randomized is similar to the proportion of enrollees in our frame who were not randomized prior to their enrollment in centers.

TABLE V.1

PERCENTAGE OF ENROLLEES IN SAMPLE FRAME WHO ENROLLED IN JOB CORPS BEFORE BEING RANDOMLY ASSIGNED

Job Corps Region	Number of Youths in the Sample Frame Who Enrolled in Job Corps from November 17, 1994, to February 29, 1996[a]	Youths Who Enrolled in Job Corps Before Being Randomly Assigned	Percentage of Youths Enrolled Before Being Randomly Assigned[b]
1	2,457	6	0.24
2	4,013	45	1.12
3	6,486	37	0.57
4	11,278	89	0.79
5	4,900	36	0.73
6	7,743	27	0.35
7/8	6,246	14	0.22
9	4,928	9	0.18
10	2,845	2	0.07
Total	**50,896**	**265**	**0.52**

SOURCE: Mishandled case identification is based on (1) data in the MPR random assignment database, which contains all eligible applicants sent for random assignment from November 17, 1994, through February 29, 1996; and (2) SPAMIS program enrollment data through February 29, 1996.

[a] Includes all study-eligible applicants assigned to the program group, those assigned to the control group who enrolled at centers, and those who enrolled at centers before being subject to random assignment.

[b] This percentage is calculated as follows: total number of youths who enrolled in Job Corps before random assignment, divided by total number of sample members who enrolled from November 17, 1994, to February 29, 1996.

3. 15 cases in the sample frame, who, due to a temporary processing failure, were incorrectly processed as cases outside of the sample frame[7]

4. An estimated 28 cases were excluded due to incomplete SPAMIS data[8]

2. Extent to Which Intended Sample Members Were Subject to Random Assignment Only Once

During the sample intake period, MPR checked whether each new applicant sent for random assignment had previously been sent for random assignment. MPR processed 177 cases who were previously randomly assigned as control group members and 3,126 cases who were previously assigned as program (research and nonresearch) group members.[9] These duplicate cases comprise about three percent of all control group members and four percent of all program group members. MPR erroneously randomized 19 of these individuals twice.[10] The remaining 3,284 cases were identified as duplicates and were randomly assigned only once.

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[7] We chose not to reprocess and randomly assign these 15 cases because (1) the applicants were already notified that they were eligible to enroll in Job Corps, (2) the applicants were generally representative of the population of eligible Job Corps applicants, and (3) we wanted to avoid a situation where youths randomized as control group members would be allowed to enroll in Job Corps.

[8] An ex-post matching process using complete SPAMIS data revealed that approximately four percent of enrollees were not included in the weekly extracts. There are no discernible patterns in the center enrollment dates for these cases, the centers they attended, or the OA agencies to which they applied. Thus, these cases appear to be random omissions.

[9] These figures include four controls sent for random assignment three times, one control sent four times, 116 program group members sent two times, 3 program group members sent four times, and 1 program group member sent five times.

[10] Fifteen of these duplicate cases were randomized twice because of a failure in the computer checking routine to identify duplicate individuals in the *same* batch. Four of these cases were randomized once into the program research and once into the program nonresearch group, and 11 of these cases were randomized into the program nonresearch group both times. In addition, four control group members who applied to Job Corps again were erroneously classified a second time as out of the sample frame and OA staff were notified that they were program group members. This error occurred right after the December 16, 1995, cutoff date that defines the study population and was corrected immediately.

Overall, the incidence of multiple transmissions is low and appears to have been due primarily to clerical error. This conclusion is supported by the fact that the percentage of duplicate transmissions is similar in the program and control groups.

3. Extent to Which Youths Not in the Study Population Were Subject to Random Assignment

The internal checks, described above, uncovered most cases that did not meet the established sample frame criteria. Limitations in the information, however, made it impossible to ensure that all cases outside the sample frame would be identified and excluded from random assignment. The two main groups of youths who may have been incorrectly randomly assigned are (1) applicants found ineligible for Job Corps, typically for medical or behavioral reasons; and (2) readmits. Next, we describe analyses to assess the extent to which ineligible individuals in each group may have been erroneously included.

Ineligible Applicants. An analysis using data on eligibility status from the ETA-652 indicates that only five percent of all youths in the research sample required a medical, behavioral, or mental health review before their eligibility for Job Corps was approved. Five percent is an upper limit on the proportion of ineligible applicants in our sample. This figure would be an accurate estimate only if all the review cases were sent to MPR before full determination of their eligibility and if all the review cases were ultimately determined ineligible for the program. We believe the actual figure is much smaller, because the random assignment procedures were designed to receive these applications only after full eligibility determination and because OA staff had little incentive to send ineligible applicants for random assignment. This belief is supported by a preliminary analysis of self-reported data from the 12-month interview. Just 0.6 percent of program group respondents said they chose not to enroll in Job Corps because they were not eligible or not accepted for the program.

Readmits. Readmits were excluded from the evaluation because we cannot assess the impact of an applicant's previous participation in Job Corps on observed outcomes. To verify whether a youth was a readmit during the random assignment process, we relied on the accuracy of the data supplied by OA and regional staff on the ETA-652 data item denoting whether the youth was a new applicant or a readmit.[11]

We believe that the readmit information is accurate for three main reasons. First, since readmits were not in the sample frame, they did not have to go through random assignment to attend Job Corps. Since OA agencies wished to minimize the number of applicants subject to random assignment, they had little incentive to submit readmits falsely as new applicants.

Second, the regional offices typically reviewed readmit applications to determine whether the circumstances of the prior termination justified reinstatement in Job Corps. This made it unlikely that new applicants would incorrectly be submitted as readmits. Third, an ex-post matching against historical SPAMIS files shows that a small percentage of applicants failed to tell OA counselors that they were applying as readmits. This matching process showed that 82 research sample members (43 treatment group members and 39 control group members) are actually readmits (only 0.5 percent of the total research sample). Since the matching process to identify readmits in the research sample was comprehensive and applied evenly to both treatment and control group members, we have removed these cases from the sample. No further data collection will be conducted with these cases, and they will not be included in the analysis.

In other situations, however, where a sample member was found to not be in the sample frame we did not change the random assignment status. These cases remain in the research sample for the analysis. This preserves the benefits of random assignment and ensures consistency in the random assignment process, because it is possible that a small number of other randomly assigned youths also are outside the sample frame but that we never learned about them.

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[11] Because this data item was required before a youth could be randomized, callbacks were made if the item was missing. Therefore, all those who were randomized were labeled as new applicants on the ETA-652 form.

4. Extent to Which Control Group Members Enrolled in Job Corps

The percentage of control group members who enroll in Job Corps centers during their three-year restriction period, or the "control group crossover rate," is analytically important for the impact estimates, since it measures the rate at which control group members receive Job Corps program services. Table V.2 presents data on the number of control group crossovers by region during both the sample intake period and the post-sample intake period. The control group crossover rate is calculated by dividing the total number of control group members who enrolled at centers by the total number of control group members in the research sample.

During the sample intake period, a total of 68 control group members enrolled at Job Corps centers, representing 1.14 percent of all control group members. About 30 percent of these control group members enrolled at centers before random assignment and were subsequently assigned to the control group; the other 70 percent were selected for the control group and then enrolled despite their control group status.

During the period after sample intake, Job Corps staff complied remarkably well with the study requirements--only 14 additional control group members enrolled in centers before the end of their three-year embargo period. These youths enrolled in eight different centers in six different regions.[12]

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[12] During the post-sample intake period, four of the control group enrollees were able to enroll as a result of transcription or data entry errors. In these cases, the social security numbers were one digit different from the social security numbers in the Job Corps SPAMIS system, enabling the youths to slip past the automated SPAMIS check without being identified as control group members. Given the isolated nature of these cases, we did not recommend that Job Corps take any remedial action that would affect the youths. In three of the remaining cases, the national office of Job Corps granted exceptions to the control group members after they reapplied or enrolled in the centers. In the final case, MPR agreed the youth should enroll because Job Corps staff provided documentation that he was actually a readmit.

TABLE V.2

CONTROL GROUP ENROLLEES ("CROSSOVERS"), BY REGION

Job Corps Region	Number of Control Group Members[a]	Number of Crossovers During the Sample Intake Period[b]: Assigned to Control Group After Enrollment	Assigned to Control Group Before Enrollment (Enrollment Dated November 17, 1994, to February 29, 1996)	Total[c]	Crossover Rate[d] (November 17, 1994, to February 29, 1996)	Number of Crossovers During Post-Sample Intake Period (Through February 28, 1999)[e]	Total Number of Crossovers (November 17, 1994, to February 28, 1999)	Total Crossover Rate Through February 28, 1999
1	260	0	3	3	0.77	0	3	1.15
2	457	3	7	10	1.97	3	13	2.84
3	808	3	10	13	1.49	0	13	1.61
4	1,347	9	6	15	0.97	4	19	1.41
5	635	2	11	13	2.05	1	14	2.20
6	876	1	4	5	0.46	3	8	0.91
7/8	729	2	5	7	0.82	2	9	1.23
9	564	1	0	1	0.18	1	2	0.35
10	301	0	1	1	0.0	0	1	0.33
Total	**5,977**	**21**	**47**	**68**	**1.14**	**14**	**82**	**1.37**

SOURCE: Problem identification is based on (1) data in the MPR random assignment database, which contains all eligible applicants sent for random assignment from November 17, 1994, through February 28, 1999; and (2) SPAMIS program enrollment data through February 29, 1996.

[a] Includes all study control group members.

[b] Crossovers during the sample intake period are control group members who enrolled at centers at some point during the sample intake period from November 17, 1994, to February 29, 1996. Crossovers include control group members (1) who enrolled at centers before random assignment and then were assigned to the control group, and (2) who enrolled at centers after they had been assigned to the control group.

[c] Of the 68 control group crossovers during the intake period, 55 were discovered through the regular monitoring process, while the other 13 were identified after the intake period through the process that matched the research sample database with complete SPAMIS files. Of these 13 controls, seven enrolled in Region 5 centers, four in Region 2 centers, and two in Region 4 centers.

[d] The crossover rate is calculated as follows: total number of crossovers divided by total number of control group members.

[e] Crossovers during the post-sample intake period are control group members who enrolled at centers after February 29, 1996, and before the date their control group restriction ends (three years after their selection into the control group).

Therefore, since the beginning of the study, a total of 82 control group members have enrolled in centers. This brings the overall control crossover rate to 1.4 percent.

In addition to the 14 control group youths who enrolled during the period after sample intake, at least 12 control group members slipped through the OA staff monitoring process, arrived at centers, were identified as control group members by the on-center SPAMIS check, and then were sent home by center staff before official enrollment. These youths are not included as control group crossovers, because they received few, if any, Job Corps program services. While other such cases may exist, we estimate that their number is small.

VI. EFFECTS OF THE NATIONAL JOB CORPS STUDY ON PROGRAM OPERATIONS

The study procedures for creating the control group in the National Job Corps Study may have affected program operations. Just as valid inferences from a random assignment study require establishing a control group and maintaining its integrity, they also require that implementation of the study does not materially alter either who participates in the program or the services they receive. If implementation changed either element, our ability to draw conclusions about the impacts of the ongoing program on its participants would be limited. Therefore, we seek to assess whether and to what extent the study may have altered the program.

Our assessment of the effects of the study on the program is complicated by what was perceived as a major program change during the early part of the sample intake period. In March 1995, responding to congressional concerns about unacceptable levels of violence and drug abuse on certain Job Corps centers, Job Corps introduced an expanded "zero tolerance" (ZT) policy to ensure full and consistent implementation of existing policies for violence and drugs. According to the new ZT policy, students accused of specific acts of violence (possession of a weapon, assault, sexual assault, robbery, extortion, or arson) or arrested for a felony were to be removed from the center immediately and terminated from the program if fact-finding established that they had committed the alleged acts. The ZT policy for drugs calls for the same procedures to be followed for students accused of possession or sale of drugs on center or convicted of a drug offense. In addition, all new students are tested upon enrollment in Job Corps, and those who test positive are given 30 days to become drug free. Even after the 30-day period, all students are subject to testing on suspicion of drug use. Students who are found not to be drug free after the 30-day probationary period are removed from center and terminated from the program. The 30-day probationary period was subsequently extended to 45 days. All applicants must be informed of the ZT policies and sign an agreement to abide by them. The main new elements of the policies were the rapid removal of offending students and the elimination of any discretion of staff regarding termination. The effects of the new ZT policies on center operations have been described in the companion process study report. However, as described below, the new ZT policies may also have affected outreach and admissions activities as well.

A second challenge for the analysis presented in this chapter is that the data we are able to present do not provide a definitive answer to the basic questions about whether the study changed either the program or the population it served. Rather, the data we have gathered are designed to provide an indication of whether material changes may have occurred because of the study.

We conclude from the analysis that the study implementation very likely had modest effects on the Job Corps program and its population during the study period. We begin with a discussion of the effects of the study on Outreach and Admissions (OA) operations.

A. EFFECTS OF THE STUDY ON OA OPERATIONS

By design, the National Job Corps Study affected primarily the OA process. As described in earlier chapters, OA staff were called upon to perform several vital study tasks with the applicants and forward data to MPR for performing the random assignment. Introducing random assignment into the Job Corps intake process changed the day-to-day activities of OA staff in significant ways. Initially, many OA staff were upset and uncomfortable with the random assignment design. They did not like the fact that some of the youth they recruited would be assigned to a control group that could not enroll in Job Corps. It is important to understand how OA counselors responded to the introduction of random assignment and whether they may have altered their behavior because of it. If the behavior of OA counselors changed in ways that affected the types of people recruited, the types who applied to the program, the timing of application, or the level or types of services provided to the control group, we will be less able to draw conclusions from the differences observed in the study about the effects of the program as it normally operates.

Sections below describe:

- Changes in numbers of new students enrolling in Job Corps
- OA counselors' reports on how key outreach activities and referral sources changed in response to random assignment
- OA counselors' reports on the number of would-be applicants who postponed their application to Job Corps because of random assignment

1. Effects of Random Assignment Procedures on the Overall Level of Recruitment

In planning for the study, we recognized that, to keep the centers operating at full capacity, the OA system would have to increase the flow of eligible applicants to the program while assigning some eligible applicants to the study control group. From historical information, the study team estimated that the control group would remove from the pipeline approximately seven percent of eligible applicants over the study's planned 12-month intake period. Accordingly, to ensure that centers would not have empty slots due to the study, the U.S. Department of Labor allocated research funds to the Job Corps program for the purpose of temporarily increasing outreach and recruitment efforts to compensate for the loss of eligible youth to the control group. The National Office of Job Corps in turn authorized additional resources to the regional offices, increasing the OA budget at the regional level by approximately seven percent. On a region-by-region basis, decisions were made to allocate some of these resources to broad-based mass media activities at the regional level, while others were used to supplement the recruitment budgets of OA contractors.

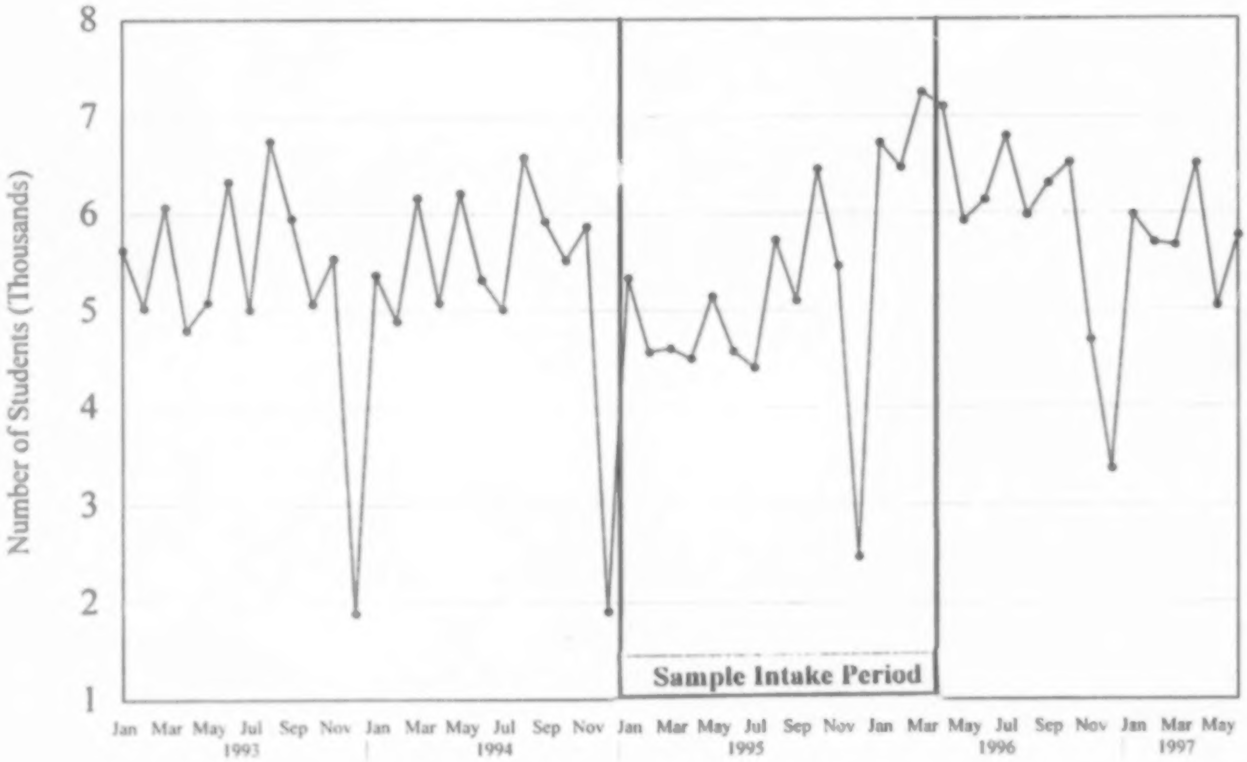
Figure VI.1 shows data on the number of students enrolling in Job Corps during each month before, during, and after the study intake period. The study selected *eligible applicants*. Furthermore, a period ranging from a few days to eight weeks separates the date at which eligibility is determined from the date at which a student arrives on center. Consequently, the period in which the numbers of enrollments are potentially affected by the study procedures--January 1995 to February 1996--is slightly later than the period in which eligible applicants were selected for the study--November 17, 1994, to December 16, 1995.

The data for the period before the study show that the number of students enrolling in Job Corps exhibits strong seasonal patterns. In particular, the number of students enrolling fluctuated between 5,000 and 6,000 per month during the first six months of 1993 and 1994, dropped off in June and July of each year, peaked at over 6,500 in August, declined modestly each month during the fall, and then fell sharply in December.

During the period affected by the study, this pattern was very different: enrollments were below 5,000 per month for most of the first half of 1995 and well below levels typical for the time of year through August. However, during the last four months of 1995 and the first two months of 1996, new enrollments at Job Corp centers were considerably above levels typical for the time of year. From January to August 1995, total new enrollments were approximately 5,800 less than the average numbers during the same months in 1993 and 1994. From September 1995 to February 1996, the number of new enrollments was approximately 3,400 greater than in the same months in 1993 and 1994. In summary, a large shortfall in enrollments during the first seven months affected by the study was nearly offset by higher-than-average numbers of new enrollments during the last six months affected.

FIGURE VI.1

NUMBER OF STUDENTS ENROLLING, BY MONTH



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To what extent was the early-period shortfall due to the study, and to what extent were other factors responsible? During the January to July 1995 period, a total of 3,107 eligible applicants were assigned to the control group. Based on the experiences of this group, we estimate that approximately 72 percent, or 2,237, would have enrolled at a center had they been permitted to do so. Thus, assuming that all these applicants would have enrolled on center by July 1995 and that increased outreach had not increased the flow of new eligible applicants as planned, the control group accounts for at most about 40 percent of the shortfall in arrivals in the first half of 1995 (2,237 out of 5,800). During the second half of 1995 and early 1996, an additional 2,870 control group members were removed from the pipeline. Yet despite the continued loss in enrollment due to the study, the number of arrivals was 3,400 greater than would have been expected for the August to February period based on the experience of the previous two years. Thus, we believe the study was responsible for a portion of the shortfall in the early part of 1995. The data seem to suggest, however, that other factors, including the introduction of the new ZT policies, played a larger role in the decline in new enrollments. Overall, a large shortfall in new enrollments during the first seven months of the period affected by the study was nearly offset by a higher-than-average number of enrollments during the last six months affected.

2. Changes in Outreach Activities and Referral Sources Due to the Study

Because OA counselors played a critical role in the OA interviews, we asked them a series of questions designed to help assess whether and how the study procedures affected outreach and referrals. Based on these reports, the study appears to have had modest effects on these activities (Table VI.1). About 15 percent said they initiated a new outreach activity, and 4 percent said they stopped doing one they had previously done. Furthermore, about one-fourth said they spent more time on outreach, while just six percent said they spent less, and two-thirds said the allocation of

TABLE VI.1

OA COUNSELORS' REPORTS ON THE EFFECTS OF THE NATIONAL JOB CORPS STUDY ON OUTREACH AND REFERRALS

(Percentages)

	Percentage of Eligible Applicants Recruited by an OA Counselor Who:					
	Began New Outreach Activities	Stopped Certain Outreach Activities	Spent More Time on Outreach	Spent the Same Time on Outreach	Spent Less Time on Outreach	Said at Least One Referral Source Stopped Making Referrals Because of the Study
Overall	15	4	28	66	6	25
By Contractor Type						
ES	12	3	25	62	13	9
JC Center	12	3	29	67	4	30
Private	21	5	29	70	1	33
By Region:						
1	14	14	14	71	15	38
2	0	0	44	56	0	40
3	0	19	22	78	0	43
4	19	1	30	66	4	8
5	10	0	19	79	2	16
6	8	4	22	55	23	19
7/8	31	1	34	63	3	37
9	23	0	40	60	0	29
10	12	0	4	90	6	22

SOURCE: National Job Corps Study OA Counselor Survey.

their time to outreach was unaffected by the study. On balance, these reports suggest that the study did not lead to major changes in outreach effort by individual counselors.

Similarly, changes in referral sources were small. About one-fourth of applicants were recruited by a OA counselor who said at least one referral source had stopped referring people because they did not like random assignment. In addition, as described in the process study, referrals from other agencies do not appear to have been a major source of new applicants. Job Corps OA counselors estimated that about 36 percent of new applicants heard about Job Corps from a referral agency, while just 14 percent of applicants said they first learned of Job Corps from a referral source other than family, friends, or the media.[1] Accordingly, because most applicants hear about Job Corps from a source other than a referral agency, and because just one-fourth of applicants were recruited by an OA counselor who had lost a referral source because of random assignment, we conclude that changes in referral sources due to the study are unlikely to have altered the population served by Job Corps.

OA counselors took an active approach to explaining the study to new applicants. Counselors were asked whether they explained the study to new applicants, relied primarily on printed materials, or used both approaches. Nearly two-thirds said they explained the study, and one-third said they both explained it and gave written materials. Almost none relied exclusively on the written materials to explain the study.

OA counselors were asked to provide an overall assessment of how study procedures affected their ability to recruit students to the program (Table VI.2). Approximately two-thirds of students were recruited by a counselor who reported that the study caused "no problems" or only some isolated problems due to the disappointment of some control group members. However, one-third

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[1] Data are from Johnson et al., Table III.4.

TABLE VI.2

OA COUNSELORS' OVERALL ASSESSMENT OF THE EFFECTS OF THE NATIONAL JOB CORPS STUDY ON EFFORTS TO RECRUIT STUDENTS FOR JOB CORPS

(Percentages)

	Percentage of Students Recruited by an OA Counselor Who Said Random Selection...		
	Caused No Problems	Caused Some Isolated Problems of Disappointment for a Few Applicants	Caused Significant Problems That Made Recruiting More Difficult
Overall	4	63	33
By Contractor Type			
ES	7	60	32
JC Center	1	64	35
Private	4	63	32
By Region:			
1	0	63	37
2	0	97	3
3	0	39	61
4	4	67	29
5	12	54	32
6	5	74	20
7/8	2	57	41
9	1	54	46
10	17	70	14

SOURCE: National Job Corps Study OA Counselor Survey.

TABLE VI.2

OA COUNSELORS' OVERALL ASSESSMENT OF THE EFFECTS OF THE NATIONAL JOB CORPS STUDY ON EFFORTS TO RECRUIT STUDENTS FOR JOB CORPS

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ES	7	60	32
JC Center	1	64	35
Private	4	63	32
By Region:			
1	0	63	37
2	0	97	3
3	0	39	61
4	4	67	29
5	12	54	32
6	5	74	20
7/8	2	57	41
9	1	54	46
10	17	70	14

SOURCE: National Job Corps Study OA Counselor Survey.

were recruited by a counselor who said the study created significant problems. The perceptions of OA counselors varied widely across regions. In Regions 2, 6, and 10, smaller percentages of students were recruited by an OA counselor who said the study caused significant problems, while Regions 3, 7/8, and 9 contained markedly higher percentages.

3. Delaying Applications to Avoid Random Assignment

To assess whether findings from the study apply to the ongoing program, it is important to understand whether the study affected the composition of youth who were recruited for or applied for the program. The findings presented above indicate that the OA activities and referral sources changed very little as a result of the study, which suggests that the types of applicants recruited would have been similar in the absence of the study. However, the extent to which youth refused to agree with the study protocol or decided to delay their application to the program could have changed the number and/or the timing of program applications.

OA counselors were asked if some applicants had chosen either not to enter Job Corps or to delay entry because of the random selection procedures. Approximately one-quarter of applicants (27 percent) were recruited by OA counselors who reported dealing with some recruits who decided to delay entry or not to enter Job Corps because of the study (Table VI.3).

To provide additional perspective, Table VI.3 also provides data on the total number of youth with whom each OA counselor starts the application process, as well as the percentage of youth that OA counselors report had delayed their application to Job Corps because of random selection. As shown in the table, the typical eligible applicant is recruited by an OA counselor who begins the application process with 385 youth. Less than one percent are estimated to have delayed their entry to Job Corps because of the study.

TABLE VI.3

OA COUNSELORS' ESTIMATES OF THE INCIDENCE OF DELAYED APPLICATIONS DUE TO STUDY PROCEDURES

(Percentages)

	Percentage of Applicants Recruited by an OA Counselor Who Reported an Applicant Had Delayed Application Because of Random Selection	Mean Number of Applications Started per Year	Percentage of Students Who Decided to Delay Entry or Not to Enter Job Corps Because of the Study
Overall	27	385	0.8
By Contractor Type			
ES	37	266	1.1
JC Center	16	422	0.5
Private	27	444	0.5
By Region:			
1	33	423	1.9
2	5	435	0.0
3	20	506	0.0
4	19	372	0.5
5	29	399	0.3
6	31	313	1.6
7/8	34	299	0.7
9	38	456	0.9
10	56	321	0.9

SOURCE: National Job Corps Study OA Counselor interview.

Discussions with OA managers at OA agencies linked to the 23 centers visited as part of the process analysis generally confirm the reports of OA counselors. About one-half of the managers we talked with reported that random selection caused some of the youth they recruited to delay their application to the program. However, these managers believed that the actual number of recruits who decided to postpone their application was quite small. Overall, these results indicate that the study design caused only very minor problems in delaying applications.

4. Provision of Additional Referral Services to Controls

An important design issue is what assistance OA counselors should provide to applicants assigned to the study's control group. As described earlier, the research team asked that OA counselors treat such youth in the same ways as other applicants who were not eligible or did not want to attend Job Corps. In "National Job Corps Study: Report on the Process Analysis," we described the referrals that OA counselors typically provide for ineligible applicants. Below, we present additional data on the extent to which OA counselors changed their referral practices as a result of the study and provided additional services to control group members.

Most OA counselors said they refer ineligible applicants for services other than Job Corps. Most also said they do the same for control group members. The percentages who said they referred all, three-quarters, one-half, one-quarter, and none of the control group were very similar to the corresponding percentages who gave these responses for ineligible applicants (data not shown). However, 43 percent of applicants were recruited by counselors who said they provided more referral services for control group members than they did for other ineligible applicants (not shown in table). Correspondingly, about 39 percent said they were more likely to refer a control group member to at least one specific type of service provider (Table VI.4). The primary organizations to which OA counselors reported referring controls more often are schools (21 percent), JTPA or other

TABLE VI.4

REFERRAL SERVICES PROVIDED TO INELIGIBLE APPLICANTS/CONTROLS
(Percentages)

	Percentage of Eligible Applicants Recruited by OA Counselors Who:		
	Usually Refer to Other Service Providers Applicants Who Are Not Able to Enter Job Corps	Were More Likely to Refer Control Group Members to This Type of Service Provider Than Other Applicants Not Able to Enter Job Corps	Refer Only Control Group Members to Certain Types of Service Providers
Refer to Any Service	98	39	8
Employment Service (ES)	65[a]	7	1
Private	50	3	0
Schools	91	21	2
JTPA/Other Government	93	13	2
Welfare	58	5	0
Church	54	0	1
CBOs	78	9	1
Military	38	1	0
Other	3	0	3

SOURCE: National Job Corps Study OA Counselor Survey.

[a] Non-ES counselors.

government programs (13 percent), community-based organizations (CBO) (9 percent), and employment service (ES) offices (7 percent). Just eight percent of all eligible applicants are recruited by an OA counselor who reported referring only control group members to a certain service provider or organization. These data suggest that counselors generally provided similar referrals for controls and for other ineligible applicants, as planned. Information from OA managers was consistent with this general view.

B. EFFECTS OF THE STUDY ON CENTER OPERATIONS

The National Job Corps Study was expected to affect primarily the OA component of program operations. The center's role was to provide normal program services to all students who entered Job Corps.[2] Centers shared responsibility with OA contractors to ensure that control group members did not reach a center. For the most part, however, this was a very minor activity that affected few centers significantly. The other way in which the study might have affected center operations is through a possible reduction in on-board strength (OBS).

To what extent did the 5,977 youth lost to the Job Corps enrollment pipeline because of assignment to the study control group affect center OBS? As Table VI.5 indicates, Job Corps was operating at near full capacity (95 percent) through the end of 1994. Then, in early 1995, OBS began a large and prolonged decline nationwide, to a low point of 78 percent in summer 1995. The reduction was especially severe in Regions 4, 5, and 6, resulting in OBS rates in these regions of about 70 percent. OBS began to turn around in fall 1995 and reached 100 percent in spring 1996. This pattern was pervasive across the region, and the timing coincides closely with the

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[2] The extent to which centers could determine which of their students were in the impact study and target additional services to those students could affect the services received by program group members and affect the impact results. However, during our site visits and other discussions with staff and students, we did not observe any evidence that students in the program research group were identified or received special treatment.

TABLE VI.5

CAPACITY UTILIZATION, NEW ARRIVALS, AND TERMINATIONS, JULY 1994 TO JUNE 1996, BY MONTH

Month/Year	Number of Students Enrolled in Job Corps as a Percentage of Available Slots	Number of New Students Arriving at Centers	Number of Students Terminating
July 94	95	4,967	5,694
August 94	94	6,512	5,830
September 94	96	5,848	5,509
October 94	97	5,469	5,271
November 94	97	5,801	4,968
December 94	96	1,882	3,950
January 95	94	5,266	5,222
February 95	92	4,506	5,227
March 95	90	4,540	6,960
April 95	87	4,429	5,830
May 95	81	5,094	6,105
June 95	79	4,516	5,389
July 95	78	4,356	4,846
August 95	78	5,641	4,971
September 95	80	5,047	4,404
October 95	82	6,390	4,424
November 95	85	5,410	4,205
December 95	87	2,439	3,413
January 96	89	6,643	4,366
February 96	92	6,424	5,065
March 96	97	7,182	5,994
April 96	100	7,049	6,188
May 96	99	5,875	6,626
June 96	99	6,091	6,328

SOURCE: Tabulations of data in SPAMIS.

implementation of the National Job Corps Study. However, it also coincides with the implementation of strict ZT policies in early 1995.

To what extent were the observed reductions in OBS due to the study and to what extent to the introduction of ZT policies? By the end of July 1995, Job Corps was operating with approximately 8,500 empty slots. As noted earlier, the shortfall in new enrollments in Job Corps during January to July 1995 was about 5,800 students. The number of control group members was at most 2,237, and the balance of the shortfall in new arrivals due to factors other than the study was 3,563. The difference between total empty slots and the shortfall in arrivals reflects an increase in terminations, which accounts for the remaining 2,700 empty slots. Accordingly, we estimate that the study's removal of control group members from the pipeline accounts for 26 percent of the slots that were empty by late July 1995. Further, about 42 percent of the empty slots were due to a drop in new arrivals beyond the removal in control group members, and 32 percent were due to an increase in terminations. Thus, the study was a significant factor, but by no means the major one.

Beginning in August 1995, these large reductions in center OBS were offset by a major campaign by the Job Corps National Office to increase center enrollment. Specifically, Operation Fast Track was an intensive media campaign (fall 1995 through early 1996) that was designed to recruit students for centers with low OBS. The campaign succeeded in bringing centers to full capacity in March and April 1996.

C. EFFECTS ON COMMUNITY RELATIONS

As described earlier, the Job Corps National Study appears to have caused some agencies and organizations to avoid random selection by ceasing to refer youth to OA counselors. This caused a temporary strain on the relationship between OA counselors and some referral sources. We also asked OA counselors and center staff whether, in addition to this impact on community relations, the study affected the image of Job Corps or the relations between contractors and the local communities they serve.

These discussions did not reveal any significant effects of the study on Job Corps' image or community relations. For example, only two percent of all eligible applicants were recruited by OA counselors that reported receiving negative publicity due to the study and its experimental design. Only in Regions 5 and 6 were five percent or more of all eligible applicants recruited by OA counselors who reported receiving some negative publicity due to the study and its experimental design. Discussions with center staff also confirmed the view that the study did not affect community relations. Finally, regional office staff consistently indicated that, at least from their perspective, the study never became the "headache" that program staff expected it to be and had minimal impact on center operations or relations with the community.

D. SUMMARY

The data presented in this chapter suggest that the National Job Corps Study had some moderate effects on key program operations. Additional resources were allocated to increase outreach and recruitment to compensate for the removal of about seven percent of students from the recruiting pipeline because of the study. During the first half of the sample enrollment period, the number of new students arriving on center dropped markedly relative to the number in the same time of year in the two prior years. However, applicants assigned to the study's control group accounted for just under 40 percent of the reduction in new students arriving. At the same time, the numbers of students being terminated from centers increased markedly relative to the numbers in recent years as well, with the result that centers were operating at just under 80 percent of their full capacity during summer 1995 (approximately the mid-point of the sample enrollment period). In the late summer, the National Job Corps office launched a major campaign to bring centers back to full capacity. Thus, during late 1995 and early 1996, the system was bringing into Job Corps more students than it usually did, even while seven percent of new recruits were still being placed in the study's control group.

The effects of the study on OA counselors' activities appear to have been modest. Few said they started new outreach activities, spent more time on outreach, or lost referral sources because of the study. Most said the study had no or only small effects on their ability to recruit students. However, one-third of students were recruited by a screener who said the study caused them significant problems that made recruiting more difficult. OA counselors reported that few students were dissuaded from applying or decided to postpone their application because of the study's random selection procedures. Finally, OA counselors do not appear to have provided substantially more assistance in finding alternative training opportunities to the control group than they provided for other applicants who could not enroll in Job Corps.

VII. LESSONS FROM THE IMPLEMENTATION OF THE NATIONAL JOB CORPS STUDY

A well-implemented random assignment study offers the best chance to provide credible evidence on the effectiveness of a large national training program such as Job Corps. Sound implementation requires putting procedures in place that consistently accomplish three tasks:

1. Explain the study to prospective program applicants.
2. Make sure all people in the population of interest are subject to random selection and that each person is subject to it once and only once.
3. Make sure only people assigned to the program group enroll in the program.

The process is simple conceptually. However, implementing a study of Job Corps that will provide nationally valid estimates of the program's effects on the youths who participate was a major challenge for Job Corps staff and the evaluation team. Implementation was a challenge for OA staff because most did not like placing some eligible applicants in a study control group that could not attend Job Corps for three years. In addition, performing the three key tasks for each applicant added to their workload. Implementation was a challenge for the research team because the study's operational features had to ensure that the simple comparison of treatment and control group outcomes addresses a relevant policy question, that control group members are affected by their association with the program and the study as little as possible, and that the work of program staff is disrupted only to the extent essential for accomplishing the study's purpose.

We believe implementation of the National Job Corps Study offers several lessons for policymakers contemplating studies of similar scope in the future and for researchers who are responsible for designing and overseeing the implementation of these studies. Three broad lessons emerge from our experience:

1. The active, visible commitment of program managers to the success of the study is very important.
2. Research staff should work closely and continuously with the line staff who conduct program outreach and intake.
3. Monitoring entry into the program ensures the integrity of the study.

A. SECURE COMMITMENT OF SENIOR PROGRAM MANAGERS TO THE SUCCESS OF THE STUDY

The commitment of program management to the success of the study is essential. Managers provide the leadership for involving line staff and getting them to perform the necessary study tasks. The experience of the National Job Corps Study illustrates the important role that high-level commitment can play in the implementation process.

Two factors helped to secure the commitment of the senior Job Corps national office staff to a random assignment study of the program. First, Congress had directed DOL to study the effectiveness of its programs using random assignment studies where feasible. Furthermore, members of Congress showed a keen interest in the study of Job Corps. The senior staff understood that the future of the program hinged on the results of the study. (A previous study, which showed that Job Corps had positive impacts and was cost-effective, was instrumental in increasing funding for the program.)

Second, the senior staff (and many other Job Corps staff) believe the program is effective in helping youths become more employable and productive. Consequently, they wanted a well-executed study whose results would be widely accepted by Congress and the public.

1. Senior Managers Developed a Strong, Clear Message to Program Staff

The national office staff developed a clear, appealing message that effectively communicated their commitment to random assignment to Job Corps staff nationwide. They argued that a demonstration of the effectiveness of Job Corps was important for persuading Congress that Job Corps deserves the large investment of public funds it receives. They reminded staff that, while people who work in Job Corps know the program works, others who are not close to the program do not have the same opportunity to observe its success. They acknowledged that random assignment was painful--turning youth away hurt the program's image in its communities and may harm some individuals who could benefit from Job Corps--but emphasized that it was necessary because it was the only way to provide Congress and the public with credible evidence about the success of the program. Staff were asked to implement the study well so that it would provide a fair test and show definitively the effectiveness of Job Corps.

The Job Corps program management structure made it easy to spread this message throughout the system. The message went from the national office to the regional offices, from the regional offices to senior staff at the centers and OA agencies, and, finally, from managers to the line staff of those organizations.

2. Senior Job Corps Regional Managers and OA Contract Agency Managers Played a Key Role

The study team had direct access to management staff at all these levels, and we used it. In the planning stage of implementation, we met with the national director and all regional directors. We then held meetings in each region in which the regional director and the managers of OA contractors heard directly from the researchers about the rationale and operational plans for the study. These meetings gave managers the opportunity to come to grips with random assignment and to help the research team develop the procedures and tools that would facilitate the work of OA counselors. In retrospect, we believe these meetings played two critical roles: (1) they placed managers in a position to work with their staff over a period of time before implementation on the issues that random selection raised, and (2) the input of managers ensured that the operational procedures for moving information between OA counselors and research project staffy worked as smoothly as possible for OA counselors. These meetings, which were conducted in all nine Job Corps regions during the late spring and summer of 1994, led to many improvements in the study team's initially proposed procedures. During sample intake, the prompt attention of managers to problems that arose ensured that those problems were corrected quickly, before they could pose a serious threat to the study.

We believe the Job Corps program's management structure and the commitment of DOL and Job Corps senior staff greatly facilitated implementation of the study. Implementation may be more difficult in programs that are less centrally managed than Job Corps and in which managers' views are not as well communicated to line staff as we believe occurred in the Job Corps study. Yet, managers' visible and active commitment is essential for securing the cooperation of line staff in performing a difficult task.

B. SUPPORT LINE STAFF WHO CONDUCT PROGRAM INTAKE

Job Corps OA counselors were asked to perform the following critical tasks for the study:

- Increase the number of eligible applicants for Job Corps to accommodate formation of the control group
- Explain the study to Job Corps applicants, their parents, and their communities
- Obtain information about each applicant that was necessary for the study
- Secure agreement to participate in the study from each applicant

- Forward information on each applicant to the study team so that random selection could be performed
- Make sure that only people assigned to the program group were sent to a Job Corps center and tell control group members that they would not be permitted to enroll in Job Corps for three years

We estimate that 1,300 OA staff from more than 110 agencies performed these tasks during the study's 16-month sample intake period. Our experience helping staff perform these tasks leads us to offer the following advice for researchers designing future studies:

Make Sure Line Staff Understand Why Random Assignment Is Necessary. People who dedicate their professional lives to recruiting students for a training program must believe the program works; otherwise, they could not be effective recruiters. Such individuals will never like turning away qualified applicants they think the program can help. Consequently, outreach and screening staff will never be comfortable with a random assignment process. Staff are more likely to accept random assignment if they are given persuasive reasons for it. The message of senior managers that the National Job Corps Study was critical to ensuring continued public support for the program provided a strong rationale.

Make the Study-Related Tasks of Line Staff as Simple as Possible and Be Flexible Where It Does Not Place Study Objectives at Risk. Line staff in most human service programs, including those in Job Corps OA agencies, have a heavy regular workload. Adding study-related tasks to their workload introduces risks that they will not have the time to perform these tasks well. As the list above makes clear, the study-related tasks of OA counselors in the National Job Corps Study were significant.

An important way to minimize staff burden is to limit the data they are asked to collect to essential items only. We had a clear rationale for collecting each data item we requested, and we made sure that OA staff understood the rationale. In practice, it is surprisingly difficult to exercise the discipline to limit data collection. However, if researchers ask program staff to collect data items whose quality or usefulness may be questionable, they risk failing to secure essential items because staff lack the time or fail to focus.

Two facets of study design and implementation illustrate ways the research team was able to address concerns program managers raised. First, we responded to concerns about the difficulty of recruiting female residential students by setting a lower sampling rate to the control group for females from areas in which students enrolling in Job Corps were residential students. This study design choice lessened (although it did not eliminate) the burden of recruiting more female residential students.

Second, sample selection and notification of OA staff about applicants' research status was accomplished quickly. We made a point of doing this because the OA system is under pressure to move eligible applicants into Job Corps quickly after they are found eligible for the program. Study coordinators at each OA agency normally sent cases for random selection on a weekly or biweekly basis. We promised to provide the research status within 48 hours in all cases, and within 24 hours if the study coordinator requested quick processing (an option used in three-fourths of applications). In exceptional situations, OA agency coordinators could receive research status almost immediately. Responding quickly in situations where OA staff needed a quick response had no material effect on the research, and OA staff appeared to appreciate being able to receive a quick response when necessary.

Provide Line Staff with Appropriate Materials to Help Them Explain the Study. All people who perform OA work will develop their own approach to explaining the study to prospective applicants. Nevertheless, certain essential points about the study must be communicated to each applicant in the most consistent way possible. To provide consistent information about the study and to help line staff develop an effective presentation, the research team developed several aids for staff use. These materials included a one-page brochure describing the study, a four-page Question-and-Answer sheet, which provided more detail about the study, and, most important, a one-page Agreement to Participate form, which all applicants were required to read and sign. The study team developed each of these aids with input received from OA agency managers at the initial meetings about the study. OA agency staff were given enough of these materials to meet their ongoing needs.

Two other important aids supported OA agency staff: (1) the study hot line, and (2) a letter to each control group member signed by a senior DOL and a senior Job Corps official. OA staff, applicants, parents, and interested community members could call a toll-free 800 number provided in the study brochure to ask questions about the study. To ensure that these calls were handled appropriately and that callers received authoritative information about the study, a senior member of the study team answered all hot line calls. One important function of the hot line was to have the research staff, rather than OA staff, "take the heat" from applicants who were assigned to the study control group or people inquiring on their behalf. The letter to control group members from senior DOL and Job Corps officials served similar purposes: it ensured that all control group members were notified and relieved OA counselors of an onerous task (at their option).

Train Line Staff to Perform Their Study-Related Tasks and Provide Ongoing Technical Assistance. We believed it was important for research team members to prepare a manual for OA staff describing their study tasks and to train OA staff directly on these tasks. Such training was designed to ensure that OA staff in all regions heard a consistent presentation about the study and to allow OA staff the opportunity to ask questions of the researchers. The study team made in-person presentations to all or nearly all OA staff in eight of nine Job Corps regions.

Because of staff turnover at the OA agencies and the award of contracts to new OA agencies, it was important to ensure that new program staff who began working after the start of the sample intake period were trained. OA coordinators were responsible for training their new staff and staff not present at the meetings.

Experience during the study's operational period confirmed the importance of training. In regions where training was less complete, we experienced higher rates of errors in handling random assignment.

C. MONITOR ENTRY TO MAKE SURE EVERYONE ELIGIBLE IS INCLUDED IN THE SAMPLE AND THAT CONTROLS DO NOT ENROLL IN THE PROGRAM

Monitoring is very important for ensuring the integrity of study procedures. In a system that counts on hundreds of individuals to follow specific procedures, some individuals may choose not to follow the procedures. Even if everyone follows the procedures conscientiously, errors are almost inevitable.

The monitoring process helped in several ways to keep error rates low. First, staff need to be informed when they make a mistake so they can avoid similar mistakes in future. If mistakes are not addressed quickly, the commitment of staff to follow the procedures conscientiously may be undermined. Scrutiny enforces discipline and gives staff continuing incentives to perform study tasks conscientiously. Second, monitoring helps focus management attention on problem areas. Whenever an apparent error was discovered, we spoke directly with the OA agency manager to determine whether an error had in fact occurred and, if so, how. We also informed regional office managers, and sometimes they intervened to help resolve problems. Third, monitoring allowed us to provide technical assistance and further training as we worked with OA agency managers to figure out why problems occurred and how we could prevent their recurrence.

Job Corps' centralized management and the program feature by which students are paid a modest stipend lead Job Corps to maintain a highly centralized data system in which all enrollees appear without fail because they must be in the data system to receive their stipend. This created an effective system for identifying errors very soon after they occurred. While this feature of Job Corps is unusual, other ongoing programs offer similar opportunities for monitoring the integrity of random assignment.

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APPENDIX A

SPECIAL PROGRAMS EXCLUDED FROM THE JOB CORPS EVALUATION

TABLE A.1

SPECIAL PROGRAMS EXCLUDED FROM THE JOB CORPS EVALUATION

Special Program	Description[a]	Reason for Exclusion
Program Alternatives for Youth (PAY) at Edison Job Corps Center, New Jersey	Edison Job Corps Center has 30 residential slots for youth who would otherwise be in state correctional facilities. These youth live at the center but take classes and eat meals separately from other Job Corps students.	Youth in correctional facilities are not usually eligible for Job Corps. Students in PAY receive services separately from other Job Corps students.
New York City Department of Incarcerations Referral Program at Gateway Job Corps Center, New York	Gateway Job Corps Center has 15 nonresidential slots for incarcerated women.	Youth in correctional facilities are not usually eligible for Job Corps.
Referral Program between the Sunrise Group Detention Home in Moses Lake, Washington, and Columbia Basin Job Corps Center, Washington	About 16 male juveniles live at the Sunrise Group Detention Home in Moses Lake and attend Columbia Basin Job Corps Center as nonresidential students.	Youth in correctional facilities are not usually eligible for Job Corps.
Referral Program between the detention facility in Naselle, Washington, and Tongue Point Job Corps Center, Oregon	Two or three youth in detention facilities in Naselle, Washington, attend Tongue Point Job Corps Center as nonresidential students.	Youth in correctional facilities are not usually eligible for Job Corps.
Referral Program between the detention facility in Yakima, Washington, and Fort Simcoe Job Corps Center, Washington	Two or three youth in detention facilities in Yakima, Washington, attend Fort Simcoe Job Corps Center as nonresidential students.	Youth in correctional facilities are not usually eligible for Job Corps.
Partners in Vocational Options Training (PIVOT) program	PIVOT is a nonresidential program with 50 slots, for women age 17 to 21 who are not pregnant. It targets women on welfare with children who live in Multomah County, Oregon. The education instruction is provided by the Portland Public School System, which does not use the Job Corps curriculum. Only business and clerical training is provided.	PIVOT differs from the regular Job Corps program in important ways: (1) the education instruction for students does not follow the Job Corps curriculum, and (2) unlike the regular Job Corps program, students are not given a choice of vocational trade. Also, its eligibility criteria are different from those of the regular Job Corps program.
Independence Satellite Program at Atterbury Job Corps Center, Indiana	The Independence Satellite program has 60 nonresidential slots for women. Applicants must usually possess a GED or high school diploma to be accepted into the program. It is a self-contained program taught by instructors from Vincennes College. It offers three courses: (1) data entry/computer service courses, (2) computer technician courses, and (3) medical technician courses.	This program differs from the regular Job Corps program in important ways: (1) it is taught by instructors who are not employed by Job Corps, and (2) only three trades are offered. Also, its eligibility criteria are different from those of the regular Job Corps program.

[a] The column describes the programs as they were operated in mid-1994, at the time of the decision to exclude them from the study.

APPENDIX B

DATA ITEMS NEEDED FOR RANDOM ASSIGNMENT PROCESSING AND MONITORING

TABLE B.1

DATA ITEMS NEEDED FOR RANDOM ASSIGNMENT PROCESSING AND MONITORING

Data Item	Importance of Data Item
	ETA-652 Form
Type of application (new or readmit)	To verify that applicant was in the sample universe (readmit applicants were excluded from the sample universe)
Applicant's name (last, first, middle initial)	Identifying information
	To check if applicant was previously randomly assigned
	To monitor enrollment of sample members and other youth into Job Corps
Social security number	Identifying information
	To check if applicant was previously randomly assigned
	To match with administrative records data (for example, UI and social security earnings data, public assistance data, and arrest records data)
	To monitor enrollment of sample members and other youth into Job Corps
Zip code of residence	To determine the appropriate sampling rate into the control group. The area in which female applicants lived was identified using the zip code of their current address
	To obtain UI data (wages reported by employers for workers covered by UI) for sample members residing in one of 17 chosen states
	To determine in-person interviewing areas for sample members
Date of birth (month/day/year)	Identifying information
	To check if applicant was previously assigned to the program or control group
	To monitor enrollment of sample members and other youth into Job Corps
Sex	To determine the appropriate sampling rate
	To obtain grouped records data, for example, social security earnings data
Race	To obtain grouped records data, for example, social security earnings data
Date of Job Corps interview (month/day/year)	To verify that applicant was in the sample universe (applicants with dates of interview before November 17, 1994, or after December 16, 1995, were excluded from the sample universe)
Number of dependents	To obtain grouped records data (for example, social security earnings data)
Telephone contact number	To check if applicant was previously randomly assigned
	To monitor enrollment of sample members and other youth into Job Corps
	Locating information for surveys of sample members
Whether applicant's parent signed the ETA-652 consent line (for applicants under age 18)	To help determine the need for parental consent on the Agreement to Participate form (in general, parents who signed the ETA-652 consent line also needed to sign the Agreement to Participate form)

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TABLE B.1 *(continued)*

Data Item	Importance of Data Item
OA office ID code (6-digit)	For identifying and tracking materials submitted by OA agencies To verify that applicant was not from an OA agency outside the U.S. mainland and was not applying for one of the special exempt Job Corps programs
	ETA-652 Supplement Form
Applicant's name (last, first, middle initial)	Identifying information (the name on the ETA-652 Supplement form was compared with the name on the ETA-652 form)[a] To check if applicant was previously randomly assigned To match with records data (for example, UI and social security earnings data, public assistance data, and arrest records data) To monitor enrollment of sample members and other youth into Job Corps
Social security number	Identifying information (the social security number on the ETA-652 Supplement form was compared with the social security number on the ETA-652 form)[b] To check if applicant was previously assigned to the program or control group To match with records data (for example, UI and social security earnings data, public assistance data, and arrest records data) To monitor enrollment of sample members and other youth into Job Corps
Likely assignment to either a residential or a non-residential Job Corps center	To determine the appropriate sampling rate into the program group
	Agreement to Participate and Consent for Records Release Form
Whether applicant signed the Agreement to Participate in the study	Assurance that applicant was informed about the study and its requirements
Whether applicant's parent signed the Agreement to Participate in the study (for applicants under age 18)	Assurance that parents of applicants who are minors were informed about the study and its requirements
Whether applicant consented to the release of his or her AFDC, criminal, and other records	Possible requirement for release of certain personal records
Whether the original, hard-copy Agreement to Participate form was received by MPR	Requirement for random assignment documentation

[a] MPR called the appropriate OA coordinator or approver if there were significant discrepancies in the name given for the same applicant.

[b] MPR called the appropriate OA coordinator or approver if there were significant discrepancies in the social security number given for the same applicant.

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APPENDIX C

JOB CORPS STUDY MATERIALS AND FORMS

LOOKING TO

THE NATIONAL JOB CORPS STUDY

WHAT IS JOB CORPS?

Job Corps is a government program that helps young men and women aged 16-24 who face difficulties in getting jobs. While in Job Corps, students receive additional education, training for a specific job, and other assistance to prepare them for the world of work.

Most Job Corps students live in one of 108 Job Corps centers across the country; some live at home while they train. In addition to education and training, students receive room and board, health care, and a small allowance. Group living and recreational activities are important parts of Job Corps.

Job Corps is operated by the U.S. Department of Labor (DOL) through a variety of public and private groups. With more than 62,000 new students receiving this intensive training each year, Job Corps costs taxpayers nearly $1 billion per year.

WHY STUDY JOB CORPS?

Job Corps is an expensive program, but so is the cost to society of young people who are unemployed. To weigh the costs against the benefits — and to make sure taxpayers' money is spent wisely — the National Job Corps Study is being conducted. Congress has asked DOL to study the effectiveness of all its job training programs, including Job Corps. The National Job Corps Study is aimed at making sure that Job Corps does what it was designed to do — help young people improve their skills and get jobs.

HOW WILL THE STUDY BE DONE?

Every eligible Job Corps applicant's name will be placed into a lottery system in which names will be selected at random. Under the lottery, each applicant will be placed in a program group or a control group. The great majority of eligible applicants — 92 out of 100 — will be in the program group. They will be able to enter Job Corps just as they usually do. A small fraction of eligible applicants — 8 out of 100 — will be chosen for the control group.

The control group will not be allowed to enter Job Corps for three years. But applicants chosen for the control group can still apply for all other educational and job training programs. Being in the control group will not affect a person's chances of getting into any other program.

The study will compare the experiences of the Job Corps program group with those of the control group. By doing so, the researchers will learn about the difference Job Corps makes in the lives of students. Researchers will contact Job Corps students and those in the control group shortly after application and at several times during the next four years. The youths will be asked questions about their job training, education, and work experience. All information will be held strictly confidential. The interviews are voluntary, and only those who wish to participate in the interviews will do so. However, cooperation with the interviews is very important, as the experiences of those who are interviewed will be used to represent the experiences of many other young men and women who apply to Job Corps.

WHAT WILL WE LEARN FROM THE STUDY?

The National Job Corps Study will tell DOL and Congress about how Job Corps is working today and about the difference it makes in the lives of young men and women. The study will compare the benefits students receive from Job Corps with the costs of the program, to see if Job Corps is a good investment of tax dollars. What we learn from the study will help make all youth training programs — not just Job Corps — better meet the needs of young men and women who face difficulties finding jobs.

WHO IS CONDUCTING THE STUDY?

Mathematica Policy Research, Inc. (MPR), an independent research and survey firm, is conducting the study for DOL. Two other organizations, Battelle and Decision Information Resources, Inc., are working with MPR.

HOW CAN I LEARN ABOUT THE RESULTS?

The results of the study will be reported in a series of reports to DOL and Congress beginning in 1997. The reports, which will be public documents and available to all, will contain information only about the average experiences of large groups of Job Corps applicants and students. No information will be reported about any individual person.

Q&A LOOKING TO THE FUTURE JOB CORPS

QUESTIONS AND ANSWERS ON THE NATIONAL JOB CORPS STUDY

Why is an evaluation study of Job Corps needed?
Most youths who leave school without a high school diploma today face bleak job prospects. Job Corps serves this group primarily. Congress and federal officials want to provide the best training and employment opportunities possible, with limited tax dollars. So, Congress has told the U.S. Department of Labor (DOL) to study its training programs, including Job Corps, to see how well they work.

Only one careful study of Job Corps has been done in its 30-year history. That study showed that Job Corps was effective, returning to society $1.46 for every dollar spent on the program. But, the study was based on a group of students who were in Job Corps in 1977 and 1978. A lot has changed since then. Job markets and the demands of the workplace have changed. The problems facing young school dropouts are worse today than ever before. And Job Corps has grown. So, it is time that we find out how well Job Corps helps today's youths succeed in today's job market.

When completed, the National Job Corps Study will let us know how much difference Job Corps makes to young people's lives. It will also tell us which parts of the Job Corps program are working well, and which may not be working as well. Lessons learned from the study will help not only today's Job Corps students, but future students in all training programs for youths.

How will the evaluation study affect how youths apply to the Job Corps program?
For the most part, the process for applying to Job Corps will remain the same. But, for about one year, people who apply for Job Corps will go through a random selection process. This process will take place after an applicant is approved to enter Job Corps but before she or he is asked to report. Applicants must sign a form stating that they understand this and agree to it, as a condition for entering Job Corps during that year.

What is meant by random selection?
Random or "chance" selection is the way in which applicants will be chosen to get into Job Corps. This process is something like a lottery, or flipping a coin, or rolling dice. A computer program will randomly decide who gets into the Job Corps program and who gets assigned to a small control group. People in the control group will not be able to enter Job Corps for three years. Being selected for the program or for the control group depends only on the "luck of the draw." Selection is done by the computer and is completely random, just like tossing a coin for heads or tails. Selection does not depend on an applicant's education, past activities, or anything she or he tells the screener. Random selection means that all eligible applicants have the same fair chance of being accepted into Job Corps.

What is the control group?
Persons who go through the random selection procedure will be placed into either the program group or the control group. The people in the control group will not be able to enter Job Corps for the next three years. To determine the effectiveness of Job Corps, researchers will compare the experiences of the Job Corps program group with those of eligible applicants who were not accepted into Job Corps.

What are an applicant's chances of being selected for the control group if she or he applies and is otherwise eligible for Job Corps?
About 8 applicants out of 100 who are determined eligible for Job Corps will be selected for the control group. The great majority of eligible applicants — 92 out of 100 — will be able to enter the program just as they usually do. The study will affect only a small fraction of eligible applicants.

Is it *legal* to deny Job Corps services to some eligible applicants for purposes of studying whether Job Corps is effective?
Section 452 of the Job Training Partnership Act, the federal legislation authorizing Job Corps and other federal training programs, directs DOL as follows:

> The Secretary shall provide for the continuing evaluation of programs conducted under this Act, including the cost effectiveness of the programs in achieving the purposes of this Act. (Section 452(d)(1))

and

> Evaluations conducted under paragraph (1) shall utilize sound statistical methods and techniques of behavioral and social sciences, *including random assignment if feasible* [emphasis added]. (Section 452(d)(2))

Is is *fair* to deny Job Corps services to some eligible applicants for purposes of finding out whether Job Corps is effective?
Job Corps screeners and program staff believe strongly that Job Corps improves people's lives. But Congress and DOL owe it to the taxpayers who pay for the program to be as sure as possible that the resources are being used in the best way possible. Even more, we owe it to the young men and women in need of training to be sure that the Job Corps program as it currently operates is indeed improving their well-being. Only a random selection study can provide this assurance.

A large, unfilled need for Job Corps appears to exist: Job Corps serves about 62,000 students annually, yet there are 3 to 4 million economically disadvantaged youths nationwide. During the period of the study, if screeners can increase the number of youths who apply for Job Corps as planned, the number of students actually served by the program will not change, even though some applicants are placed in the control group. The random selection process is fair because all eligible applicants will have an equal chance of being chosen for the program group.

Isn't there a way to do this study without random selection?
The researchers carefully reviewed alternative ways of doing the study without using a control group based on random selection. For example, they considered using "no-shows" and youths who do not apply to the program as a control group for comparison purposes. However, none of the other methods could yield a reliable control group of youths who were similar to Job Corps students in terms of motivation and commitment to obtain training. Because of the important role the National Job Corps Study will play in the years to come in informing Congress about the effectiveness of the Job Corps program and in helping DOL design effective education and training programs for youths, the study results must be convincing and not subject to criticism and controversy.

A control group based on random selection does not have this problem and is the only way to reliably evaluate Job Corps and provide the information Congress and DOL need. As a result, the advisory board for the study, along with DOL and Job Corps officials, agreed with the researchers that a control group based on random selection is the best method for conducting the National Job Corps Study.

Can an applicant ever get into Job Corps if selected for the control group?
Eligible applicants will be able to enter Job Corps after three years, if they meet eligibility criteria at that time. Under current law, students may enter Job Corps if they have not reached their 25th birthday at the time they enter. Thus, unless program eligibility requirements change in the future, control group members who have reached age 22 at the time they first apply will never be able to enter Job Corps.

If selected for the control group, can an applicant still get into other non-Job Corps programs? Yes. Being selected for the control group affects nothing else besides being able to enroll in Job Corps. Persons who are selected for the Job Corps study control group can still apply to all other educational programs or job training programs, whether funded privately, or by local, state, or federal government. Being in the control group in no way affects applicants' chances of getting into other programs.

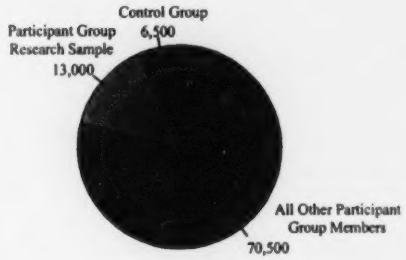
How will being in the control group affect Job Corps applicants? Being in the control group will be a disappointment for many applicants. They will not be able to pursue a training opportunity that might have helped them acquire skills they need to succeed. But, none of the previous studies using control group members has shown that control group members are harmed or their motivations to succeed are hindered by this experience. Job Corps is one of many programs that help youths get education or job training. And, control group members can still apply to these other programs. On the other hand, many control group members know that they will be giving important information about what is needed to make better training and employment programs for other young people. Finding out about the things that happen to control group members or the things that they end up doing helps Congress, DOL, and people who plan programs get a better idea about what happens to people who cannot get into Job Corps. Some control group members balance their personal disappointment with realizing that they are contributing to a process that will help other young people.

Do all applicants have to participate in this study, or is it voluntary? All Job Corps applicants throughout the United States must sign a statement saying that they have been informed about random selection, and that they agree to be part of the random selection procedure. All applicants must sign this statement in order to be eligible to participate in Job Corps. However, participation in all interviews for the study is entirely voluntary.

What will be required of Job Corps applicants who are in the study interview group? All eligible Job Corps applicants will be part of the study. Those selected for the control group and a sample of those selected for the program group will be asked to participate in interviews with trained interviewers. The interviews will be conducted soon after a student applies and at various times during the next four years. Participation in the interviews will be fully voluntary. But, participation of all students — whether in Job Corps or the control group — is vital to the study's success.

How many students will be in the study interview group?
The accompanying chart shows the breakdown of students in the study. Altogether, 90,000 eligible applicants are expected during the study period. Of these, all applicants in the control group (6,500) and a sample of applicants in the program group (up to 13,000) will be asked to complete interviews. The remaining applicants (approximately 70,500) will be in the program group but will not be interviewed.

All Eligible Job Corps Applicants
n = 90,000



What kinds of information will be collected in the interviews?
Interviewers will ask questions about applicants' job training, education, and employment experiences. They will also ask questions about other experiences in the applicants' past and their plans for the future. Some questions will be asked about sources of income and experiences they have had with the criminal justice system. Job Corps students will also be asked about their experiences with the program.

What kinds of information will be collected from the records data?
Some information about applicants' employment and earnings, experience in government programs, or experiences with the criminal justice system will be collected from agency records. This information will be especially helpful to track applicants' activities during the period when they are not being interviewed.

Will information collected in the interviews or from other records be kept confidential?
Absolutely. All information collected for this study will be kept strictly confidential and used only for the purposes of this study, with no names attached. Results of the study will be presented only as group averages or percentages, so that no one will know what any one person said.

Who is sponsoring this study?
The study is being sponsored by DOL, the federal agency responsible for Job Corps.

Who is conducting this study?
The study is being conducted by Mathematica Policy Research, Inc. (MPR), of Princeton, NJ, an independent research and survey firm. MPR is being supported in this study by Battelle and Decision Information Resources, Inc., two other research firms.

U.S. Department of Labor

Employment and Training Administration
200 Constitution Avenue, N.W.
Washington, D.C. 20210

March 19, 1995

Control Group Member Name
Control Group Member Address
City, State ZIP

Dear Control Group Member:

This letter is a reply to your recent application to the Job Corps program. You have been selected to be a member of the *control group* in the National Job Corps Study. As you were told during your application interview, being a member of the control group means:

- You cannot enter or apply to enter Job Corps for a period of three years.
- You are free to apply to other employment assistance or training programs that may be available in your area.

Please remember that your selection into the control group was based totally on chance, as if you participated in a lottery. It had nothing to do with your personal characteristics, your qualifications for Job Corps, or anything you told your screener. Your selection for the control group has no bearing on your possible selection for any other local, state, or federal training programs.

We realize that being selected for the control group means you will need to make other plans for your job, education, and training needs. We sincerely regret any hardship that this may cause you. However, having a control group is the best way we know to learn how Job Corps and other training programs help young people like you prepare to find jobs. Someone from Mathematica Policy Research, Inc., or an affiliated organization, will contact you in the near future to conduct a confidential interview. Because we want to make sure all students get the best possible training, we are very grateful for your participation in the National Job Corps Study.

We wish you success in your future plans.

Sincerely,

Raymond Uhalde

Peter Rell

Raymond Uhalde
Deputy Assistant Secretary for Employment and Training

Peter Rell
Director, Office of Job Corps

Job Corps Data Sheet

U.S. Department of Labor
Employment and Training Administration

Recruited by | Telephone No. | OMB Approval No: 1205-0025 Expiration Date: 09/30/94

1. Type of Application: ☐ New ☐ Readmit
2. Applicant's Name *(Last, First, M.I.)*
3. Soc. Sec. No. or Tin
4. Street Address or RFD
5. City
6A. State Abbr.
6B. ZIP Code
7. Alternate Contact
8. Date of Birth: Month Day Year
9. Sex: ☐ Male ☐ Female
10. Race-Ethnic Group: ☐ White ☐ Black ☐ Hispanic ☐ American Indian or Alaskan Native ☐ Asian or Pacific Islander
11. Legal U.S. Resident: ☐ Yes ☐ No — Alien Registration Number
12. Date of Interview: Month Day Year
13. Size of Place: ☐ Under 2,500 ☐ 2,500 - 9,000 ☐ 10,000 - 50,000 ☐ 50,000 - 250,000 ☐ Over 250,000
14. Mos. Out-of-School
15. Highest Grade Completed
16. No. Wks. Since Employed Full Time
17. Earnings Per Hour $.
18. Family Receiving Public Assistance ☐ Yes ☐ No ☐ Yes
19A. No. of Dependents
19B. Childcare Plan ☐ Yes ☐ No
20. Family Status ☐ Family Head ☐ Family Member ☐ Unrelated Individual
21. NC. In Family
22. Estimated Annual Income $.
23. Military Service Prior to Enrollment in Job Corps ☐ Yes ☐ No
24. Have you ever been convicted or adjudged delinquent in any offenses against persons or property; such as, assault and battery, robbery, arson, burglary or homicide ☐ Yes ☐ No

25. Health Questions
a. Have you had any serious illnesses/injuries in your life? ☐ Yes ☐ No
b. Have you been under the care of any physical or mental health care provider (e.g., physician, chiropractor, mental health clinic) in the last year? ☐ Yes ☐ No
c. Do you have any health condition(s) that you are being treated for or that you know of at this time? ☐ Yes ☐ No
c. Are you or your family covered by any health insurance or eligible for Medicaid at the present time? ☐ Yes ☐ No

If "Yes" is checked for item "d" above, complete 1, 2, and 3 — 1. Name of Company 2. Policy No. 3. State

Any "YES" answers to questions a, b, or c, item 25, complete ETA Form 653, Job Corps Health Questionnaire.

26. Consent Record — a. Name of Applicant *(Print)* b. Date c. Telephone Contact for Applicant ( )

I (We), the undersigned, hereby CERTIFY all of the above information on this application to be accurate.

I (We) hereby consent to the enrollment of the above-named individual into Job Corps.

I (We) further AUTHORIZE all routine and customary physical examinations, dental work, surgical and other treatment as required by Job Corps regulations, as well as the collection of information such as education and medical records.

I (We) UNDERSTAND that any false statement or dishonest answers will be grounds for the dismissal of the above named individual and may be punishable by law.

I (We) have been SUPPLIED with a personal copy of the Job Corps Privacy Act of 1974. I (We) have READ the statement and UNDERSTAND its contents.

I (We) UNDERSTAND that failure to stay in Job Corps for more than 180 paid days may mean loss of the readjustment allowance.

I (We) UNDERSTAND that the Job Corps program offers a total educational and vocational program in residential sections, and after having explained to me (us) other employment and training programs available in my (our) community, I (We) am (are) CONVINCED that the Job Corps will best meet the needs of the above named individual.

I (We) have been PROVIDED with a copy of Your Guide to Job Corps and a list of all Job Corps vocational offerings, have had the contents of both documents explained by the screener and all of my (our) questions have been answered.

Signature of Parent/Legal Guardian | Signature of Applicant | Date

27. ELIGIBILITY FACTORS
☐ Disruptive home life
☐ Unsafe, unhealthy overcrowded dwelling
☐ Limited Job opportunities
☐ Disruptive neighborhood or community characterized by high crime rates
☐ Cultural Deprivation

28. APPLICANT NEEDS BI-LINGUAL PROGRAM ☐ Yes (Span/Eng) ☐ No ☐ Yes (Other)

29A. Is applicant eligible to make an allotment? ☐ Yes ☐ No
29B. Amount $ 0.00

30. VERIFICATION ☐ Age ☐ School Status ☐ Capacity to Participate in Job Corps Program ☐ Juvenile Court Record ☐ Public Asst. ☐ Adult Court Record

31. ELIGIBILITY STATUS ☐ Eligible for Referral ☐ Waiver Request for Criterion ☐ Not Eligible ☐ Medical ☐ Behavior ☐ Mental Health

32. REMARKS *(If additional space is needed, use separate sheet.)*

33. CERTIFICATION: *I CERTIFY that the information entered on this application is true and correct to the best of my knowledge.*
SCREENER'S NAME (Print) | SIGNATURE OF SCREENER | DATE

34. NAME AND ADDRESS OF SCREENING AGENCY (St., City, State, ZIP Code) | OFFICE ID NO. | AREA CODE AND TELE. NO. ( )

REG. OFC. USE ONLY | 35. BEHAVIOR REVIEW ☐ Yes ☐ No | 36. MEDICAL REVIEW ☐ Yes ☐ No | 37. MENTAL HEALTH REVIEW ☐ Yes ☐ No | JOB CORPS CENTER USE ONLY | 38. LOCATOR CODE | 39. READING SCORE

Public reporting burden for this collection of information is estimated to average 1 minute per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of IRM Policy, Department of Labor, Room N-1301, 200 Constitution Avenue, N.W., Washington, D.C. 20210; and to the Office of Management and Budget, Paperwork Reduction Project (1205-0025), Washington, D.C. 20503.

DO NOT SEND THE COMPLETED FORM TO EITHER OF THESE OFFICES

ETA 6-52 July 1990

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NATIONAL JOB CORPS STUDY SUPPLEMENT TO ETA-652 FORM

APPLICANT INFORMATION

1. APPLICANT'S NAME (LAST, FIRST, MIDDLE)

2. SOCIAL SECURITY NUMBER (IF NONE, WRITE "NONE")

3. LIKELY RESIDENTIAL STATUS
1 ☐ Residential
2 ☐ Nonresidential

4. ESTIMATED TIME FROM APPLICATION INTERVIEW UNTIL ARRIVAL AT CENTER
|___|___|___| DAYS

5. LIKELY CENTER TYPE
1 ☐ Contract
2 ☐ CCC

6. NAME OF LIKELY CENTER

7. HAS APPLICANT BEEN ARRESTED IN THE PAST THREE YEARS, OTHER THAN FOR MINOR TRAFFIC VIOLATIONS? (SELF-REPORTED; ANSWER NOT SUBJECT TO VERIFICATION)

1 ☐ Yes — Number of Arrests .... |___|___|
0 ☐ No Number of Probations .... |___|___|
Number of Incarcerations .... |___|___|

8. RELATIVE TO OTHER APPLICANTS YOU HAVE INTERVIEWED, HOW LIKELY DO YOU THINK IT IS THAT THIS APPLICANT WILL ACTUALLY ARRIVE AND ENROLL AT A CENTER?

1 ☐ Very likely 3 ☐ Somewhat unlikely
2 ☐ Somewhat likely 4 ☐ Very unlikely

CONTACT INFORMATION

MOTHER OR FEMALE GUARDIAN

NAME AND ADDRESS

Last First Middle

Number Street Apt. No.

City State Zip Code

TELEPHONE: Home (____) ____-______
Area Code Number

Work (____) ____-______
Area Code Number

FATHER OR MALE GUARDIAN: If same as mother's or female guardian's address, record name and write SAME under address.

NAME AND ADDRESS

Last First Middle

Number Street Apt. No.

City State Zip Code

TELEPHONE: Home (____) ____-______
Area Code Number

Work (____) ____-______
Area Code Number

GRANDPARENT OR OTHER RELATIVE

NAME AND ADDRESS

Last First Middle

Number Street Apt. No.

City State Zip Code

Relationship to Applicant:______________________

TELEPHONE: Home (____) ____-______
Area Code Number

Work (____) ____-______
Area Code Number

OTHER RELATIVE OR FRIEND

NAME AND ADDRESS

Last First Middle

Number Street Apt. No.

City State Zip Code

Relationship to Applicant:______________________

TELEPHONE: Home (____) ____-______
Area Code Number

Work (____) ____-______
Area Code Number

______________________ Screener's Name *(Print)*

______________________ Screener's Signature

____/____/____
MM DD YY
(Date)

APPLICANT'S RESEARCH STATUS (CHECK APPROPRIATE BOX AND INITIAL UPON RECEIVING STATUS FROM MPR)

APPLICANT ASSIGNED TO: *(Check One Only)* ☐ Control Group ☐ Program Group Initials: ______

OMB # 1205-0351 Expires: October 31, 1996

BEST COPY AVAILABLE

NATIONAL JOB CORPS STUDY AGREEMENT TO PARTICIPATE

We want to know about your experiences with the Job Corps Program. The U.S. Department of Labor has asked Mathematica Policy Research, Inc.(MPR) to find out if Job Corps helps young people find and hold good jobs. Over the next few years they will be studying the program and looking at students' experiences before, during, and after being part of the program. The purpose of this form is to ask your permission to be part of the study.

By signing this AGREEMENT, you understand that:

- Everyone who applies to Job Corps must agree to be part of the study. *If you are eligible for Job Corps, a lottery or chance drawing will decide whether or not you will be selected to enter Job Corps.* About nine out of every ten eligible applicants will be selected to enter Job Corps.
- If you are *not* selected for Job Corps, it means you have been selected for a separate group, called a "control" group.
- If you are picked by chance for the control group, you will not be allowed to enroll in Job Corps for three years.

In addition:

- MPR may ask to interview you soon after you apply to Job Corps and three more times in the next four years. This is voluntary. You can decide not to be interviewed at any time. This will not affect your participation in Job Corps.
- Information gathered by MPR from interviewing you will be kept strictly confidential, unless the law requires or you ask otherwise in writing.
- All information from interviews with you for the National Job Corps Study will be used by Mathematica Policy Research, Inc., or other research organizations for the purposes of the study only. All information will be strictly confidential. The information will be reported in a manner in which you will not be identified.

I have read (or have had read to me) and understand this AGREEMENT, and I agree to be part of the study.

Applicant Name Printed	Applicant Signature	Date
Applicant Date of Birth	Person Administering Form	

IF APPLICANT IS UNDER 18 YEARS OF AGE:

Parent or Guardian Name Printed	Parent or Guardian Signature	Date

---

CONSENT FOR RECORDS RELEASE

As part of the National Job Corps Study, I give permission:

For the study team to gather and use information about me from records of public programs such as Aid to Families with Dependent Children (AFDC), public assistance, Food Stamps, the Unemployment Insurance program, and criminal justice system records. These include arrest and conviction records, court records, and juvenile arrest and conviction records. This permission covers the period beginning one year before and ending seven years after the date I sign this form.

I understand that all information gathered through the use of this form for the National Job Corps Study will be used by Mathematica Policy Research, Inc. or other research organizations for the purposes of this study only. All information will be strictly confidential, unless the law requires or I request otherwise in writing. I give permission for information about me, as described above, to be used for the National Job Corps Study.

Applicant Name Printed	Applicant Signature
Date	Person Administering Form

IF APPLICANT IS UNDER 18 YEARS OF AGE:

Parent or Guardian Name Printed	Parent or Guardian Signature	Date

OMB # 1205-0351 Expires: October 31, 1996

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NATIONAL JOB CORPS STUDY
RANDOM ASSIGNMENT SUBMISSION
COVER SHEET

AGENCY INFORMATION

AGENCY NAME:

AGENCY MPR NUMBER:

AGENCY FAX NUMBER:

SCREENER COORDINATOR NAME:

SCREENER COORDINATOR TELEPHONE NUMBER:

SUBMISSION DATE: ___ ___ / ___ ___ / 19 ___ ___
MM DD YY

PROCESSING PRIORITY *(check one)*:
- ☐ Regular
- ☐ Expedited

COVER SHEET _____ OF _____ COVER SHEETS IN THIS SUBMISSION

TOTAL NUMBER OF APPLICANTS SENT IN THIS BATCH: _____

APPLICANTS ELIGIBLE FOR RANDOM ASSIGNMENT

	NAME				FORMS		
	LAST	FIRST	M.	SOCIAL SECURITY NUMBER	ETA-652	652 SUPP	AGREEMENT
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

TO SUBMIT BY EXPRESS OR MAIL:
National Job Corps Study
Mathematica Policy Research, Inc.
311 Enterprise Drive, Suite H
Plainsboro, NJ 08536

TO SUBMIT BY FAX: 800-298-3383

FOR QUESTIONS: 800-568-8535

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EXAMPLE OF A RANDOM ASSIGNMENT NOTIFICATION REPORT SENT TO OA AGENCIES

NATIONAL JOB CORPS STUDY
RANDOMIZATION REPORT
Tue Mar 5 10:40:22 1995

Batch: 13729
Page: 1

Batch: 13729
Agency: xxx
Name: Jane Doe

Received: 03/04/95

Priority: Expedited

Applicants: 10
Fax: xxx-xxx-xxxx
Phone: xxx-xxx-xxxx

Status	Name	SSN
	- - - - - - - - - - - - - - - Screeners Agency ID = xxxxxx - - - - - - - - - - - - - - - -	
Program Group	NAME	xxx-xx-xxxx
	- - - - - - - - - - - - - - - Screeners Agency ID = xxxxxx - - - - - - - - - - - - - - - -	
Program Group	NAME	xxx-xx-xxxx
Program Group	NAME	xxx-xx-xxxx
Unassigned[a]	NAME	xxx-xx-xxxx
	- - - - - - - - - - - - - - - Screeners Agency ID = xxxxxx - - - - - - - - - - - - - - - -	
Program Group	NAME	xxx-xx-xxxx
Program Group	NAME	xxx-xx-xxxx
Control Group	NAME	xxx-xx-xxxx
Program Group	NAME	xxx-xx-xxxx
Program Group	NAME	xxx-xx-xxxx
Program Group	NAME	xxx-xx-xxxx

[a] Missing parental consent signature.

APPENDIX D

CHRONOLOGY OF RANDOM ASSIGNMENT IMPLEMENTATION FOR THE NATIONAL JOB CORPS STUDY

TABLE D.1

CHRONOLOGY OF RANDOM ASSIGNMENT IMPLEMENTATION FOR THE NATIONAL JOB CORPS STUDY

Time Period	Event	Description of Event
Pre-Sample Intake Period		
July 1993	Job Corps Study Contract Begins	The U.S. Department of Labor (DOL) contracted with Mathematica Policy Research (MPR) and its subcontractors, Battelle Human Affairs Research Centers and Decision Information Resources, to conduct a comprehensive evaluation of the National Job Corps Program.
September 1993	Initial Contacts Made to Job Corps Regional Offices	MPR staff met with senior staff in each of the regions to understand Job Corps intake procedures.
November 1993	First Advisory Panel Meeting	The Advisory Panel recommended the use of a randomized design for the National Job Corps Study and the development of a supplemental application form to collect a limited amount of baseline information on applicants.
November 1993	Use of Random Assignment for the Job Corps Study Approved by DOL	DOL determined that a random assignment design for a national sample of Job Corps youth was important for the Job Corps Program.
December 1993 to May 1994	Ongoing Discussions with Job Corps National, Regional, and OA Staff to Discuss Proposed Random Assignment Procedures	MPR staff visited OA agencies in different areas of the country to discuss intake procedures with admissions counselors and to examine case files of applicants. MPR staff prepared and circulated draft training manual to Job Corps staff nationwide.
March 1994	Second Advisory Panel Meeting	The Advisory Panel met to discuss a variety of issues relating to the sample design, impact analysis, benefit-cost analysis, and process analysis. The resolution of key issues relevant to the implementation of random assignment are as follows: • The power of the sample for detecting the impact of the nonresidential component was increased. • The suggestion to extend the sample intake period by 12 months was rejected. • No provision was made for "wild cards" or individual exemptions from random assignment. • Information was collected from the ETA-652 Supplement Form to allow for estimating program impacts for the following subgroups: (1) residential slots, (2) nonresidential slots, (3) CCC centers, and (4) contract centers.
June to July 1994	Meetings with Senior OA and Regional Office Personnel	The purpose of the meetings was to explain the need for and design of the random assignment study to senior Job Corps staff and to obtain feedback on procedures for integrating the random assignment process into normal Job Corps operations.
July 1994	Study Design Report Submitted to the U.S. Department of Labor	The design report presented the overall plan for evaluating the impact of the Job Corps Program on participants' postprogram labor market and related behaviors (Burghardt et al. 1994). Among other things, it outlined and discussed various design options relating to the implementation of the study.

TABLE D.1 *(continued)*

Time Period	Event	Description of Event
August to September 1994	Training for Job Corps OA Staff Nationwide	MPR staff trained Job Corps OA staff in all regions about their role in the study. Approximately 900 staff were trained, including OA coordinators in all regions and OA admissions counselors in nine of ten regions.
November 1, 1994, to November 16, 1994	Random Assignment Trial Period	To test and improve submission and processing procedures, OA agencies were asked to follow study submission procedures beginning November 1, 1994. MPR staff processed these applications but did not apply sampling rates during this trial period.
Sample Intake Period		
November 17, 1994	Official Start Date of Sample Intake	Job Corps staff submitted materials to MPR on Job Corps applicants newly determined eligible for the program. The forms submitted for each eligible, new applicant included (1) the ETA-652 Intake Form; (2) the ETA-652 Supplement form; and (3) the Study Agreement to Participate form. MPR processed these forms and randomly assigned each eligible applicant in the sample universe.
November 1994	Sample Monitoring Begins	MPR staff performed weekly monitoring of the sample to ensure that (1) all eligible applicants in the sample frame were randomly assigned, and (2) control group members did not enroll in centers.
November 1994	Toll-Free Job Corps Hotline Implemented	To respond to a variety of questions and concerns relating to the Job Corps study, MPR established and operated a toll-free hotline during both the sample intake and post-sample intake periods.
March 1995	Job Corps Policy Changes Implemented	Job Corps implemented several changes in program policies in response to congressional concerns. The key policy changes include the following: • Implementation of more selective and intensive pre-arrival screening related to applicants' drug use, criminal and behavioral record, and overall capabilities and aspirations for Job Corps. Contracting procedures were modified to provide incentives for OA staff to recruit appropriate youth. • Institution of center-based policies of "Zero Tolerance" for drugs and violence and "One Strike and You're Out" for Zero Tolerance offenses. • Establishment of a center-based "30-Day Commitment Period," during which centers assess students' motivation to complete their training plan and remain drug free.

TABLE D.1 *(continued)*

Time Period	Event	Description of Event
August 1995	Adjustments to Sample Design	In May 1995, MPR staff assessed the accuracy of the initial design parameters using the first five months of sample intake data. A number of adjustments to the sample design were made to ensure that the final sample size would be large enough to generate impact estimates at originally targeted precision levels. The changes included the following: • Extending the sample intake period from the fall of 1995 until early 1996. • Increasing the control group sampling rate from eight to nine percent for applicants living in areas from which many nonresidential students come. Program research group sampling rates were also increased somewhat.
December 16, 1995	Program Application Cutoff Date	All eligible youth completing applications after this date were not included in the sample universe and hence were not randomly assigned.
February 29, 1996	Official End Date of Sample Intake	MPR staff set the sample intake end date for February 28, 1996. Applications received by MPR after February 28, 1996, were not subject to random assignment, whether or not they met sample universe criteria.
Post-Sample Intake Period		
March 1996	Notification of Sample Intake End Date for Job Corps Staff	The National Office of Job Corps sent a memo to all relevant Job Corps staff informing them that they would no longer be required to send information on eligible applicants to MPR for random assignment processing. MPR staff sent a similar memo to OA staff announcing the end of sample intake. MPR staff sent lists of control group members to all OA staff for use in post-sample monitoring.
March 1996 to February 1999	Ongoing Monitoring by MPR and Job Corps Staff	MPR staff conduct ongoing weekly monitoring to (1) estimate the proportion of applicants in the sample frame who were not randomized, primarily because of the cutoff of the sample intake period; and (2) prevent and track the number of control group members who enroll at centers during their three-year restriction period. Job Corps OA and center staff use control group lists to identify control group members that attempt to enroll in Job Corps. Through the Job Corps SPAMIS system, control group members are identified if they attempt to enroll in centers.
March 1996 to February 1999	Ongoing Operation of Toll-Free Job Corps Hotline	To respond to a variety of questions and concerns relating to the Job Corps study, MPR established and operates a toll-free hotline. The hotline will remain operational throughout the postintake monitoring period.

APPENDIX E

PROCESSING STEPS PERFORMED BY MPR BEFORE RANDOM ASSIGNMENT

Before performing random assignment, MPR staff performed a series of key processing steps to ensure that the sample frame and processing criteria were satisfied. These included (1) quality checking, (2) initial data entry for all applications, (3) call backs to obtain key data, and (4) automated consistency and validity checking and problem resolution.

A. QUALITY CHECKING

Upon receipt of a batch of application materials, MPR quality control clerks performed the following tasks: assigned an internal tracking number to the batch, marked the batch with the appropriate MPR internal identification code, collated the three study forms, and prepared the applications for data entry. Before the forms were data entered, MPR clerks conducted a manual quality check of all items on each of the three study forms. If critical data items were missing or inconsistent, the clerk contacted OA coordinators to obtain the missing data or resolve the inconsistencies.

B. DATA ENTRY FOR ALL APPLICATIONS

After the initial quality check, selected data from the cover sheet and each of the three forms was key entered into MPR's random assignment database (RAD) for every application and batch of applications. A number was assigned electronically to the batch of applications, and the following information was data entered for the batch: date received, number of applicants, agency code number, agency fax number, OA coordinator or approver name, OA coordinator or approver phone number, and processing priority (regular or expedited). For efficiency in processing, a series of data items were key entered for all applications. Most of these items were necessary for performing random assignment; a few were needed only for random assignment monitoring and tracking purposes. In Table B.1 in Appendix B we presented the items that were data entered prior to random assignment and described the importance of each item.

C. CALLBACKS TO OBTAIN KEY MISSING OR INCONSISTENT DATA

To obtain key data missing from the ETA-652, the ETA-652 Supplement, or the Agreement to Participate form, to reconcile inconsistencies in the data, and to determine whether or not an applicant met the criteria necessary for random assignment, MPR clerks made calls to OA coordinators and approvers. Callbacks were made before the random selection procedure was conducted, but after quality checking and initial data entry.

Application forms were generally complete. Since accurate completion of the ETA-652 was required as part of the OA admissions counselors' regular duties, and since the completion of the ETA-652 Supplement and Agreement to Participate form was well integrated into the Job Corps intake process, forms submitted to MPR were very complete. Although we do not have data on the number of applications that required a callback, we estimate that callbacks by MPR staff to OA coordinators and approvers were required for less than five percent of applications processed. Although this is a small proportion of all applications, approximately 5,000 applications, or 75 per week, required a callback. More callbacks were required during the first several months of intake, when OA staff were adjusting to random assignment procedures. MPR staff most frequently made callbacks for the following reasons, in order of frequency:

- One of the three study forms was missing from the batch.
- The parent or guardian did not sign the Agreement to Participate form and the youth was under 18 years of age.

- The social security number was missing.[1]
- The designated assignment to a residential or nonresidential slot was missing from the ETA-652 Supplement.
- The applicant did not sign the Agreement to Participate form.

These missing items were obtained for each case before random assignment was conducted.[2]

D. CONSISTENCY AND VALIDITY CHECKING AND PROBLEM RESOLUTION

After MPR clerks performed quality checks, entered data, and made any callbacks, but before the completion of random assignment, a series of automated computer checks were executed. These checks verified that data were consistent and valid and ensured that the application satisfied all the criteria for random assignment. If the case did not meet the criteria, then the processing checks were not performed. The sample frame and processing checks are described as follows:

Sample Frame Checks:

- ***Application Date.*** Using the date of interview field from the ETA-652, the system automatically checked whether an applicant applied to Job Corps between November 17, 1994, and December 16, 1995. If the interview date did not fall within this period, the youth was not randomized. If the interview date was missing, MPR clerks contacted the OA coordinator.
- ***State of Application to Job Corps.*** In order to verify that the OA agency that submitted the application was within the U.S. mainland (the contiguous 48 states or the District of

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[1] If the callback revealed that the applicant did not have a social security number, we assigned a unique, nine-digit identifying number or used the applicant's temporary identification number (TIN).

[2] In exceptional cases where parent or guardian consent could not be obtained (for example, if the applicant was an emancipated minor or the parent or guardian could not be located), MPR waived the parental consent requirement if the OA coordinator provided (1) a memo documenting the applicant's case, and (2) any available documentation to support the waiver for parental consent (for example, a marriage certificate or court documentation). Parental consent for minors was not obtained for seven percent of all applications of youth under age 18.

Columbia), the system first checked whether an applicant resided in the U.S. mainland.[3] If the applicant resided outside the U.S. mainland, the system set an error message. At this point, MPR clerks manually checked where the OA organization's office was located. If the youth did not reside in the U.S. mainland, but the OA organization's office was located in the U.S. mainland, then the youth was included in the sample frame and randomized. Otherwise, the youth was not randomized.

- ***Readmit.*** Using the type of application item from the ETA-652, the system automatically checked whether an applicant enrolled in a Job Corps center prior to November 1, 1994. If the "readmit" status box had been checked, then the youth was not in the sample frame and was not randomized. If the "new" applicant status box had been checked, then the youth was in the sample frame and was randomized. If neither box was checked, MPR staff contacted the OA coordinator or approver to determine the appropriate status. Since the regional offices typically reviewed readmit applications, and since youth were required to state their readmit status at the intake interview, we anticipated little inaccuracy in this data item. For sample monitoring purposes, however, we required OA coordinators to send to MPR the ETA-652 for all eligible readmits.

- ***Exempt, Special Programs.*** Using the six-digit ID code of the OA agency that recruited the applicant, MPR staff manually identified applications to the seven exempted programs.[4] These applications were not included in the sample frame and therefore were not randomized. The manual step was necessary since ID codes were available for only half the exempted programs. However, along with the manual check, the system also automatically checked, using the available ID codes, whether an applicant was specifically intended for one of the special, exempted programs. If the code matched one of the special ID codes and had not been identified through the manual check, then the youth was not included in the sample frame and was not randomized.

Processing Checks:

- ***Prior Random Assignment (Duplication).*** The system automatically checked whether an applicant was previously sent to MPR for random assignment. A data file containing the new information on the applicant was matched to the random assignment database. A match occurred if (1) the social security numbers matched; (2) the name and birthdate indexes (comprising the last name, the first two letters of the first name, and the date of birth) matched; or (3) the telephone numbers matched.

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[3] Since OA agencies outside the contiguous 48 states or the District of Columbia were not trained on Job Corps study procedures and were not provided with study materials, we did not receive submissions from them.

[4] Since OA agencies were not required to send applications for youth applying to one of the special, exempted programs, we did not expect to receive submissions from them.

When matches occurred, MPR clerks hand-checked the information to ensure that the applications were actually duplicates. If hand-checking indicated that an application was a duplicate, the application was not randomly assigned again. Instead, it was automatically assigned its previously assigned status code.

- ***Key Information.*** Using a variety of checks, the system automatically verified that key information from the three study forms was valid and consistent. If key data items were missing, invalid, or inconsistent, MPR clerks contacted the OA coordinator or approver to obtain the missing data and resolve any inconsistencies.

- ***Agreement to Participate Form.*** The system automatically verified that applicants provided signed consent for participation in the study and that, if the applicant was under 18 years of age, the parent or guardian also provided signed consent for the applicant's participation in the study. Only those applicants who provided written consent were randomly assigned and permitted to enroll in Job Corps. If the applicant was under 18 years of age, parent or guardian consent was also required before random assignment, except in those unusual cases noted above. To perform random assignment, it was not necessary that the applicant agree to release his or her AFDC, UI, Medicaid, child support enforcement, and criminal records.[5]

Applications that satisfied all these checks were then randomly assigned to the program or control group, as described in Chapter III.

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[5] Three-quarters of all youth that were randomly assigned did sign the Consent for Records Release.

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